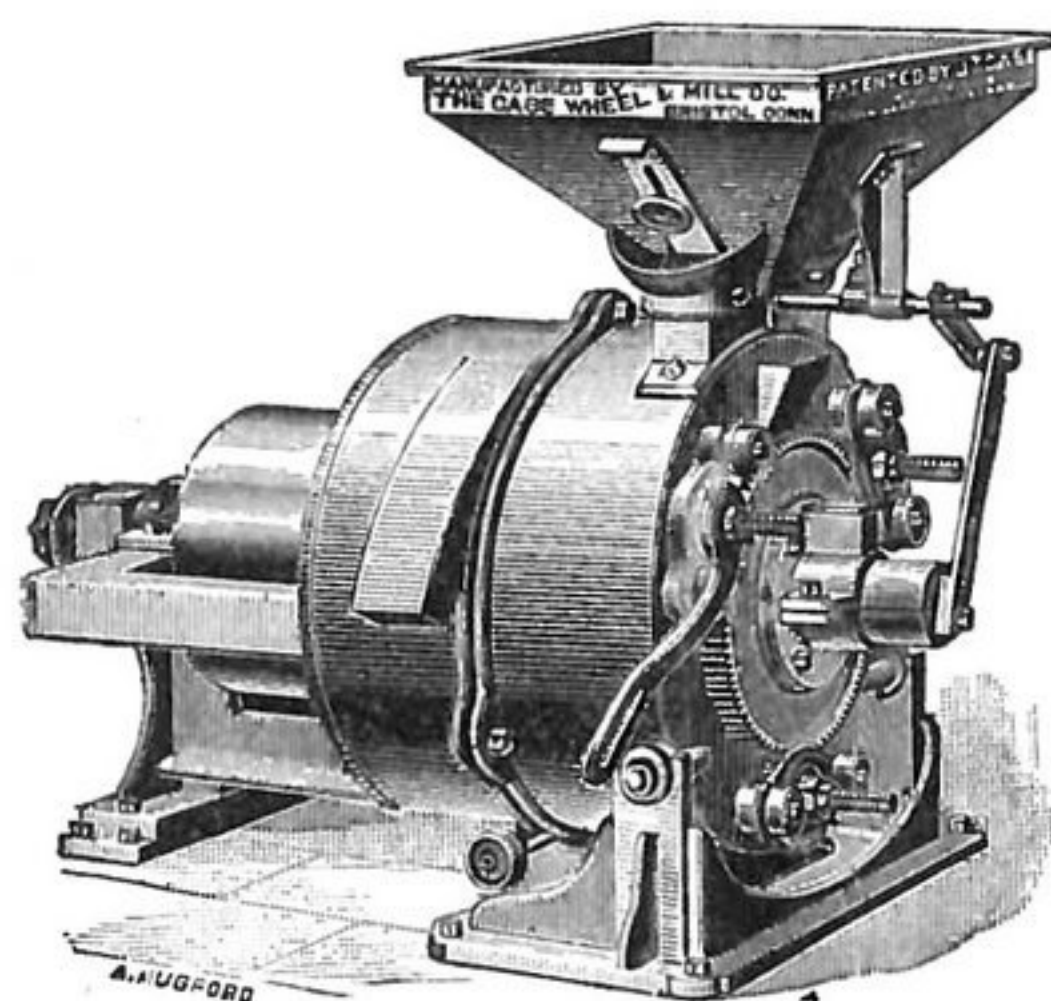


PUBLISHED EVERY MONDAY MORNING.

VOL. XX. No. 2.

BUFFALO, N. Y., MARCH 11, 1889.

\$1.50 PER YEAR.



VICTORY OVER ALL OTHERS. SINGLE & DOUBLE VERTICAL GRINDING MILLS. (J. T. CASE'S PATENT.)

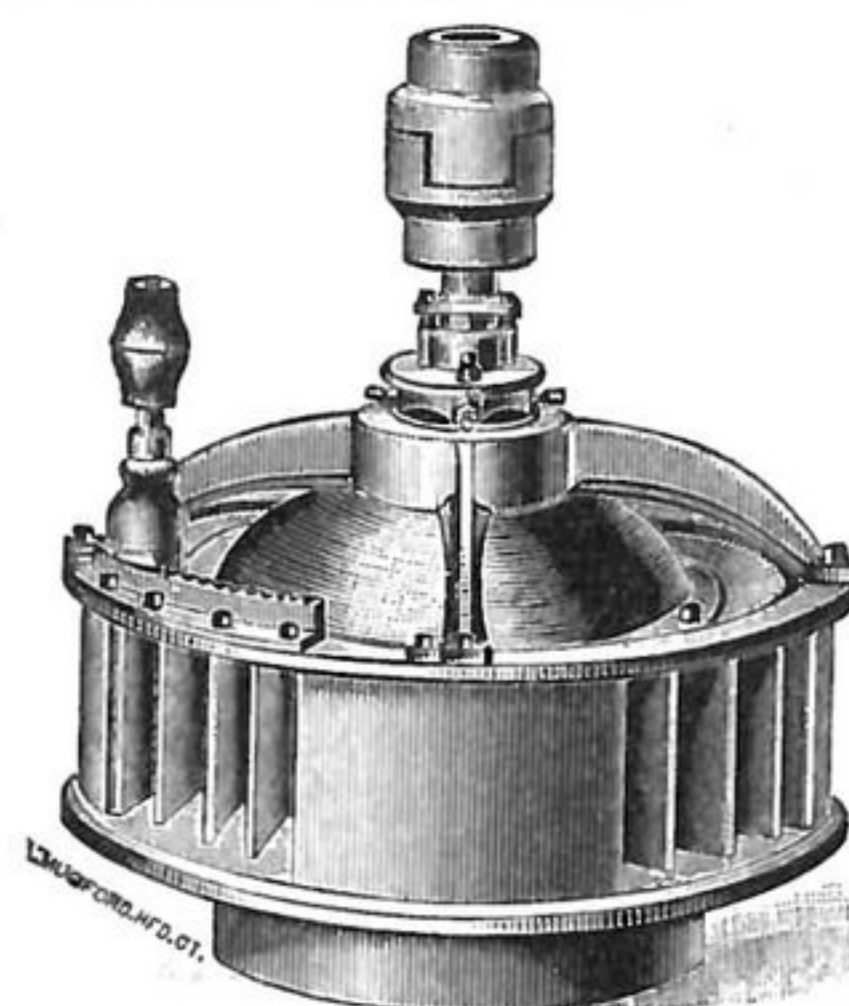
FACTS ARE MIGHTIER THAN ASSERTIONS. READ WHAT THEY SAY:

"Our 20-inch mill made by the Case Wheel & Mill Co. is in every respect satisfactory, easy to handle, and best results obtained of any mill in the country, with same quantity coal and power."—A. S. RUSSELL & Co., Meriden, Conn.
"Superior to any mill in use."—GEO. WESTON, Bristol, Conn.
"The best satisfaction in quantity and quality."—CHILD'S ELEVATOR, Manchester, Ct.
"We take pleasure in recommending it."—GARLAND LINCOLN & Co., Worcester, Mass.

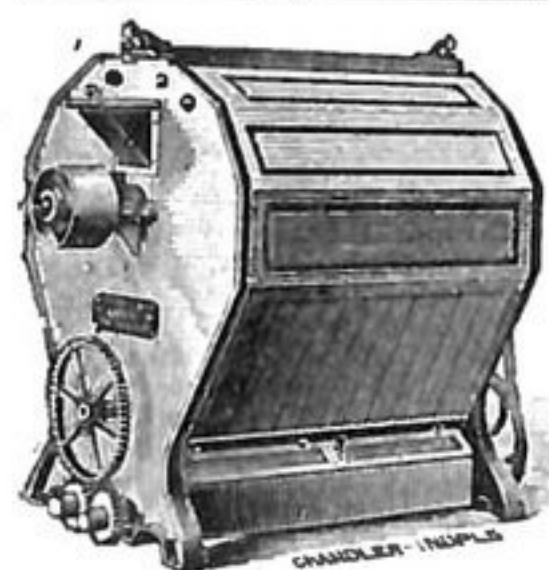
SEND FOR CATALOGUE—ILLUSTRATED AND DESCRIPTIVE.

The Improved National Turbine Water Wheel

The Best for Economy; The Best for Durability; The Best for Power. ONE THOUSAND FIVE HUNDRED NATIONAL WATER WHEELS IN USE Prove that our Assertions are Supported by the Leading Manufacturers in the Country. Send for illustrated catalogue and prices to the manufacturers.

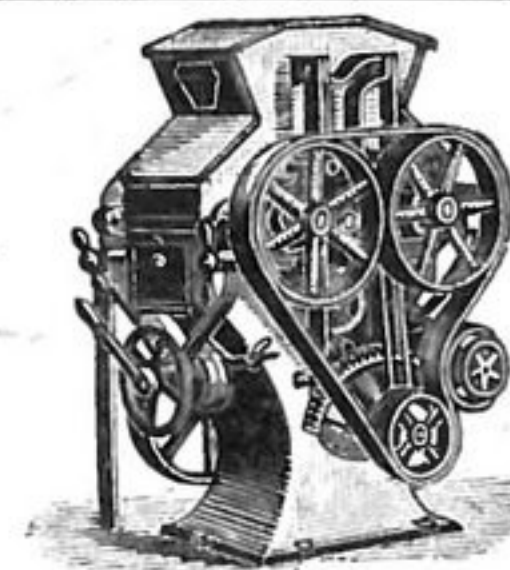


The Case Wheel & Mill Co., Bristol, Conn.



FOOD FOR REFLECTION

READ IT, AND DON'T FORGET IT

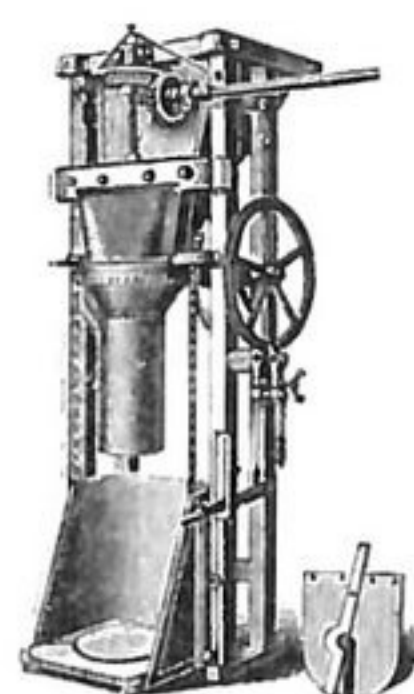


A Convincing Testimonial.

The following letter was written by a prominent Indiana firm of winter wheat millers and published in one of the milling journals. It will explain itself:

"Seeing articles from time to time in the milling journals in regard to different mills, we would be pleased to furnish you with a short description of ours. Our mill was furnished and put up by the J. B. Allfree Co., of Indianapolis, Ind., and has been in operation since July, 1888. We have 75 barrels capacity, making three breaks on wheat and five on middlings. The rolls are known as the 'Keystone' and are very fine machines, as they are well built, have excellent adjustments and are supplied with an automatic feed which is perfect in itself, making in all light-running and very complete machines. The bolters are called the 'Success' and are built by the same company. This reel has advantages over any round reel we have seen. The lifters are so arranged that by the use of a lever they can be adjusted in or out, thus allowing the miller to confine or discharge the stock, according to his own judgment and the kind of stock being handled. The purifiers, bran-duster and packer are alike good machines and the workmanship is first-class in every respect. The wood-work, being finished with two coats of varnish, gives the mill a very fine appearance. The plant from the start has made an excellent grade of flour and we have had no trouble in competing or selling all we can make. There has not been a single change made, nor do we desire one. The clean-up is first-class and we think we have one of the finest little mills in the state. We give a standing invitation to any of our brother millers to visit our mill and examine its work. The string hangs on the outside and all are welcome. In dealing with the Allfree Co., we find them perfect gentlemen in every respect, and, while filling the contract in all particulars, they even did more than they agreed to. Wishing them deserved success we are respectfully,

EMMONS & LEHMAN,
Jamestown, Ind., Jan. 10.

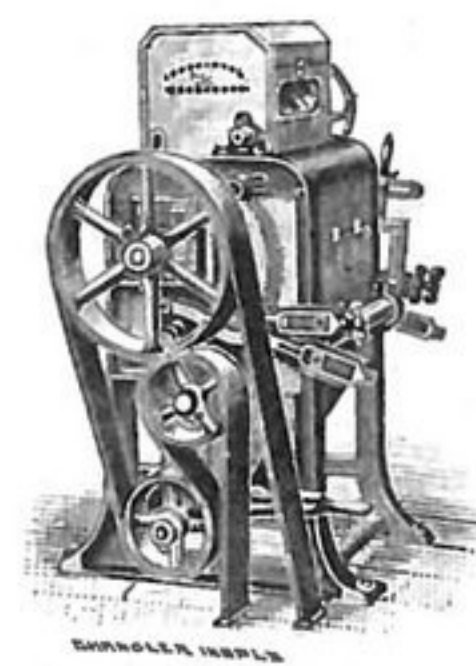


WHEN YOU WANT TO BUILD AN A NO. 1 MILL.

We Solicit Orders for Dufour Bolting Cloth.

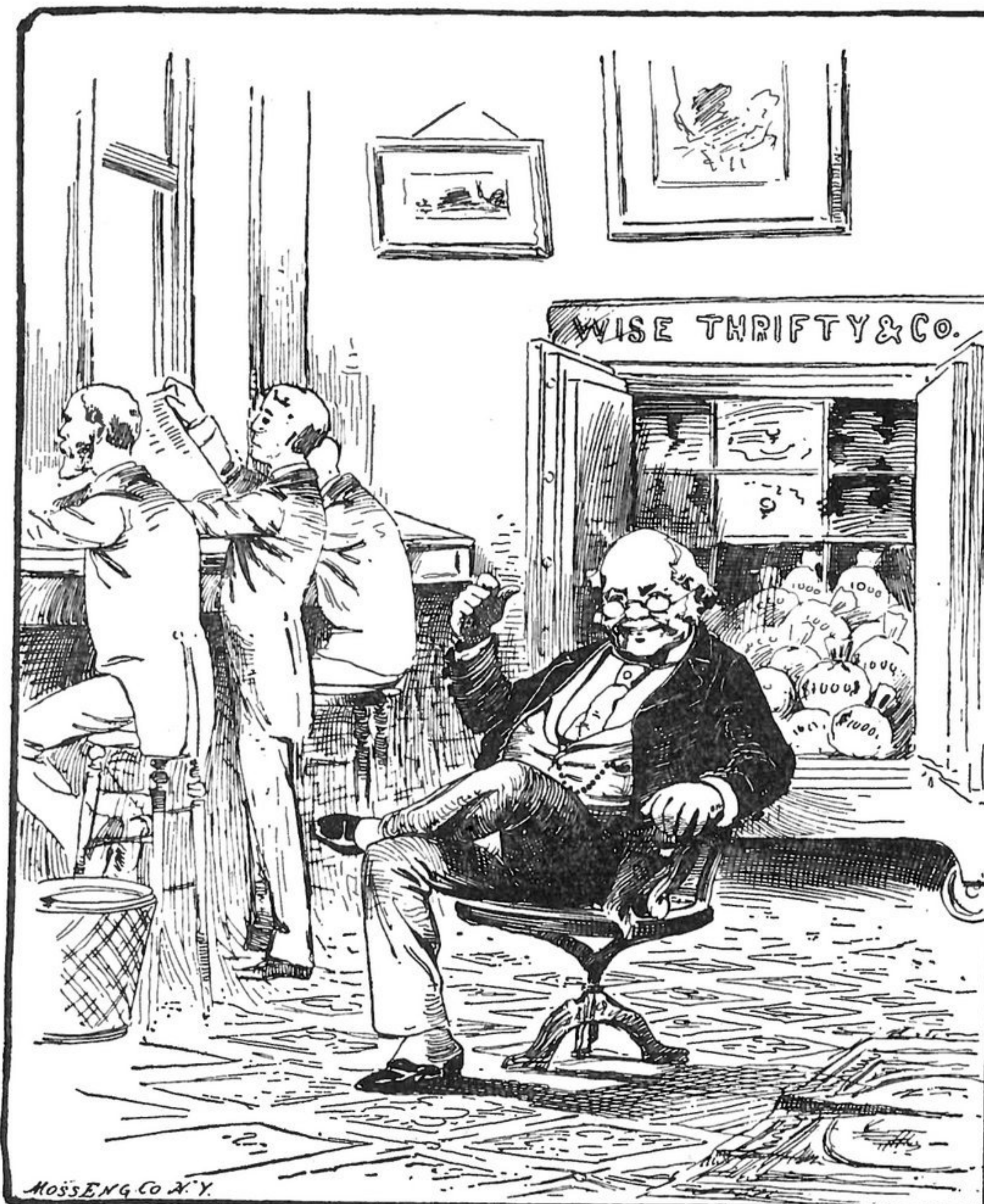
—ADDRESS—

The J. B. Allfree Co., Indianapolis, Ind.



RIGHT TO THE POINT

"The best laid plans o' mice and men
Gang aft aglea."
But the Case Mill gets there every time,
So all the millers say.



"WE PUT IN A CASE SHORT SYSTEM MILL."

Old father Wise, with twinkling eyes,
Points backward to the well-filled till,
While Thrifty scans the new made plans
To double up the CASE SHORT MILL.



"WE DIDN'T!"

Old Shiftless weeps—the sick cat sleeps,
Doolittle has gone out to pray,
The spiders fill the empty till,
While hungry rats now hold full sway.

JUST TAKE A LOOK AT WHAT THIS MAN WRITES:

THE CASE MFG. CO., COLUMBUS, OHIO.

ELYRIA, OHIO, OCT. 10, 1888.

Gentlemen: Enclosed please find settlement in full of my account. The 4-break mill works splendid and am well pleased with it. The Inter-Elevator Flour Dressers are everything you represent, both in capacity and excellence of work. The Special Purifiers are a fine machine and far ahead of the Purifiers you put in my other mill in '83. Am especially pleased with the millwright work. It is well planned and finished in a good, workmanlike manner. I can not praise your millwright and his work too highly.

Yours resp'y,

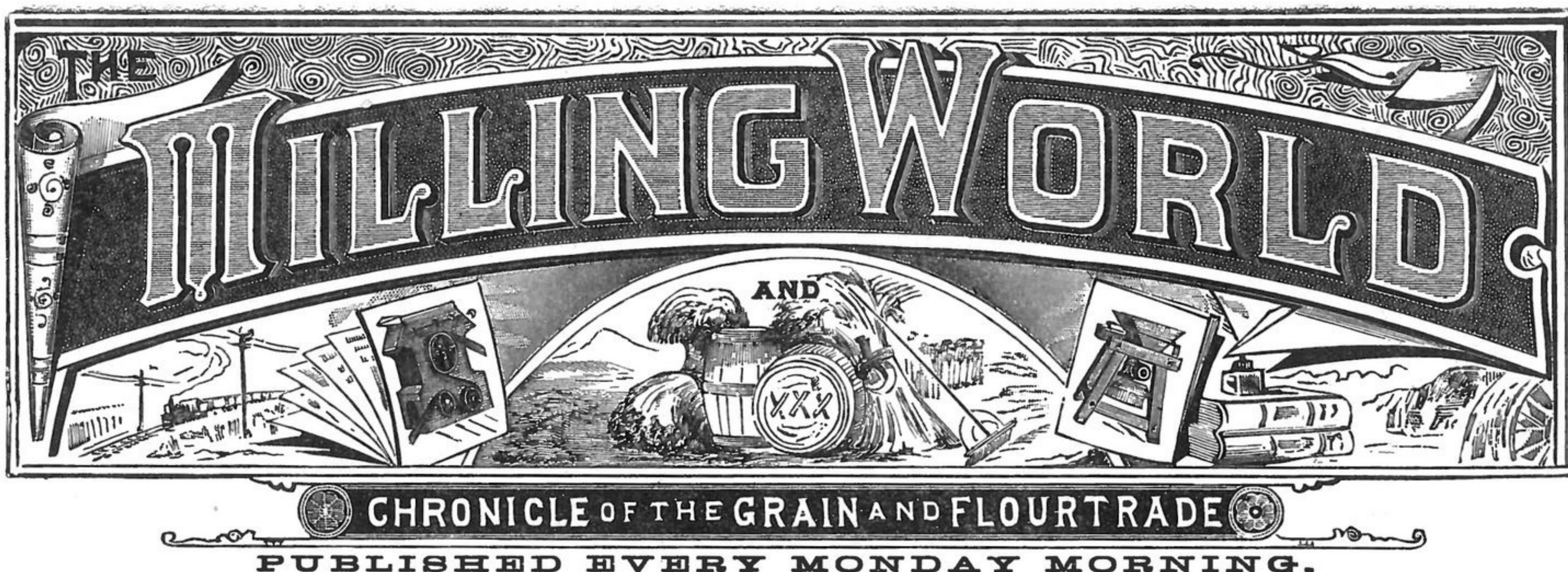
GARRET REUBLIN.

If you want a successful mill write us. Long System Mills remodeled on short notice. Case Short Break Corrugations put on any make of rolls. Our Roller Corn Mills are a most profitable investment. Now is the time to put one in your mill. Our Aspirator and Purifier for Corn Meal will astonish you. Belting, Gearing, Elevator Supplies, Silk and Wire Cloths shipped promptly on receipt of order. If you want mill supplies of any kind write us. Estimates on mills of any desired capacity furnished on short notice. Write us at once and state the capacity wanted and number of grades of flour you wish to make. The Automatic Feed on our machines makes them superior to all others. Catalogues and Circulars Mailed on Application.

RE-DRESSING ANY MAKE OF ROLLS PROMPTLY A SPECIALTY.

THE CASE MANUFG. CO., COLUMBUS, OHIO.

PLEASE MENTION "THE MILLING WORLD."



VOL. XX. No. 2.

BUFFALO, N. Y., MARCH 11, 1889.

\$1.50 PER YEAR.

OUR esteemed Boston cotemporary, "The Manufacturers' Gazette," is out in a handsome dress of new type, neat, clear and legible. Congratulations are in order.

FEBRUARY was a busy month for the fire-fiend. In the United States and Canada during that month the total fire-loss was nearly \$13,000,000. The milling and allied industries contributed over \$542,000.

DETROIT wheat inspection has recently been badly discredited. It is reported that 19 out of 50 car-loads sent from Detroit to Cleveland missed grade, and that another shipment to New York was quite as unfortunate. It is not stated whether the Detroit inspection is really under-careful and under-honest, or the Cleveland and New York inspections are over-careful and over-exacting. There may be an equal mixture of both at both ends of the line.

BUFFALO millers are reported to be looking favorably on white Oregon wheat. Samples of No. 1 extra white from Oregon received in Buffalo on the 4th of March attracted a good deal of attention. The grain was pronounced the largest and heaviest ever seen in the city, and millers who examined it thought it would give an immense yield of flour. It is a little remarkable that this really fine and desirable grain has received so little attention from the millers of Buffalo and vicinity. Minneapolis spectacles have always been adjusted to the Buffalo milling eye by Minneapolis opticians, and naturally enough the opticians have gauged the lenses so that the range of vision stopped short of Oregon. The Dakota and Minnesota wheat-growers have always insisted that Oregon wheat is of no account in comparison with their own, but it is probable that close examination and fair trial of the Oregon grain will reveal many strong points in it that will commend it to eastern flour-makers. Should Buffalo take the lead in using Oregon wheat, other neighboring towns will follow.

"BUFFALO is entering a strong protest against the habit the cows of that town have of wandering about the streets, switching their tails against the plate glass windows and hooking policemen off the sidewalks." So chronicleth our esteemed Minneapolis cotemporary, the "Daily Market Record." But that is only a part of the remarkable performances of the frisky Buffalo cows. They have eaten all the grass off Main street, stripped the markets of every green enticing vegetable, and lately they have developed strong carnivorous propensities and have begun to dine off verdant strangers who get lost in the pastures and grain-fields that variegate the chief streets of Buffalo. By the way, have there not been recently reported several cases of "mysterious disappearance" of Minneapolis persons who set out for Buffalo? Is it possible our graminivoro-carnivorous bovines have knocked down with their switching caudal appendages those missing Minneapolitans and actually devoured them as supposititious vegetables of emerald hue? Some of the cows have been ailing lately, and it is barely possible they have been dining over-freely off estrayed Minneapolitans.

RUSSIAN wheat-growing was supposed to have received a great impetus because the crops of 1887 and 1888 in that country were above the average, and because the American shortage in 1888 gave the Russians a good chance to dispose of their large surplus in Great Britain. Recent reports from Russia do not indicate that the impetus is visible. It is stated that the Russian area sown for 1889 will be much smaller than the area of 1888, despite the present supposed favorable situation. The fact seems to be that Russian agriculture is in a very depressed and demoralized condition, and the depression has been intensified, rather than ameliorated, by the sale of the large surplus of 1888 at the very low prices prevailing. Russian farmers are poor, at the best. Their soil is thin. Their wheat is inferior in quality. Their mode of harvesting, threshing and storing wheat insures an admixture of dirt, sand, gravel, chaff, stalks and clay ranging from 5 to 15 per cent. They lack railroad facilities. Russian wheat is a Jack-at-a-pinch grain and stand small chance in competition with American wheat on an average crop. The Russian wheat can not be ground alone successfully in Great Britain. If it is ground alone, the flour must be strengthened, toned and colored by the addition of American flour. It may stand as a makeshift, along with Indian wheat, but it can not, under ordinary crop conditions, be reckoned a conquering competitor with American wheat.

MINNEAPOLIS editorial egotism is again heard howling in the ozone-cyclone-trombone monotone so familiar in that quarter. The editor of the flour-dealers' and grain-gamblers' journal published in that city is really afraid that too many associations of millers are forming. He is sitting up nights, thawing open his ink-bottle with a hammer and writing warning slush to the millers to go slow in forming associations. With the thermometer registering 36 degrees below zero, that editor is really sweating with fear over the very dreadful things that will happen in case any more associations are formed. As usual, the sheet-iron thunder and the crocodile-tears in Minneapolis are very comical to the on-looker. So long as the associations that were being formed were formed under the tutelage and with the divine permission of that editor, he was satisfied to see scores of them called into existence. Every one of them that made his journal its "official organ" was all right. Now one is formed that is powerful in numbers and influence, but that does not fawn upon him, that does not boom him, that in no way ministers to his smirking egotism, that pays no attention to him and that asks no favors of him, and immediately he discovers that there are too many associations. Of course the offending associations should at once take heed. They should truckle to the offended Minneapolis pewter deity on casters and either convert themselves into his sort of organizations or commit hari-kari. When he frowns terribly, even the earthquakes should be afraid, and the planets should pause in their orbits to quake and otherwise suitably express their appreciation of the Minneapolis disturbance. Beware, millers. Apply to Minneapolis for permission to associate, or some very dreadful thing will happen to you.

The Canton Cabinet Filing Case Company, Canton, Ohio,

MANUFACTURERS OF

The New Buckeye Document Case & Letter File; Also All Kinds Office Furniture



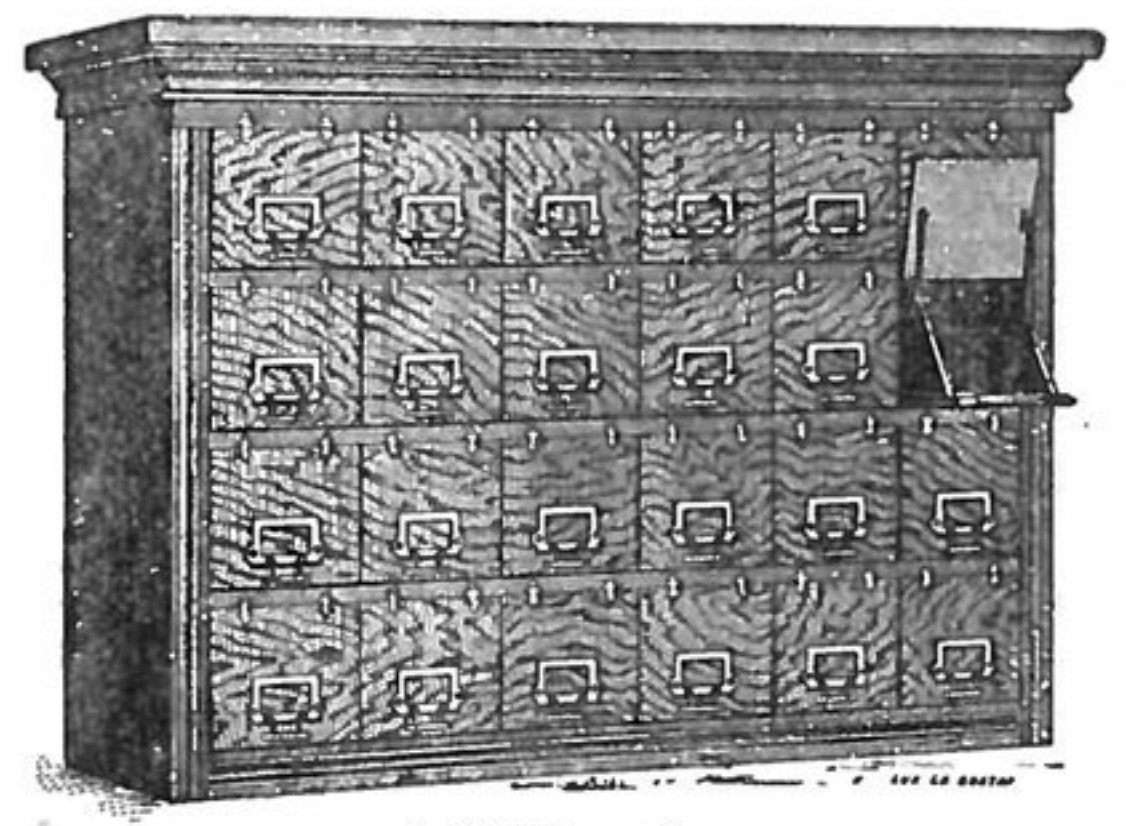
NO. 8.

NO. 8 Represents one side of one of our Revolving Cabinet Letter Files and Document Cases Combined. It contains 30 Document Drawers and 8 Letter File Drawers. In filing letters we use first VOWEL of name on front of drawer, and LETTER FOLLOWING first VOWEL on Index Sheet within drawer. We also make more exhaustive systems which contain from 6 to 100 or more Filing Drawers.

NO. 1 Represents one of our small Document Cabinets, for use on desks or brackets. Action of drawer can be seen in the cut. When front is raised inner drawer comes forward, exposing contents of drawer for inspection.

Our Cabinet Files are Conceded to be the Most Convenient of Any in the Market. They are Compact, Simple, Complete, Durable and Ornamental.

SEND FOR PRICE LIST AND CATALOGUE.



NO. 1.

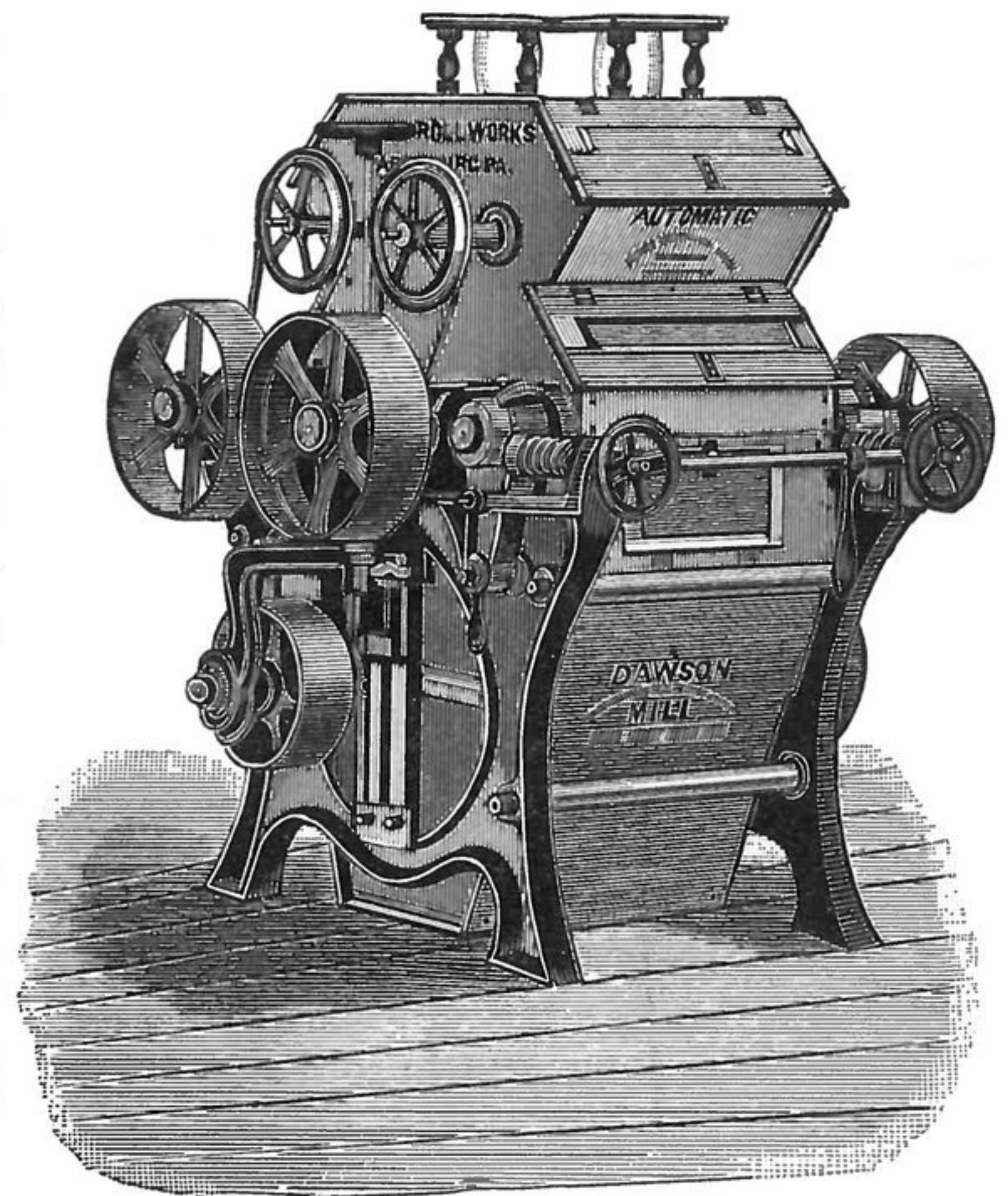
Dawson's Roller Mill

Is acknowledged to be the very best in the market. It has our Patent Automatic Centrifugal feeder, never failing to feed the stock the full length of rolls in an even sheet. It is the Latest and Best feed out, uses less power and is simple in construction. It can be placed on any style of machine with little expense. We use for roll bearings phosphor-bronze metal which will admit rolls being run at any speed without heating and with little friction, and uses little oil. We use the Dawson Corrugation, which is admitted the best in long or short system mills as the action is granulating rather than CUTTING.

We have a large plant to Re-grind and Re-Corrugate Rolls.

Owing to our late increased facilities and central location we are enabled to ship goods promptly on the shortest notice.

PARTIES CONTEMPLATING REMODELING THEIR MILLS OR BUYING ANY ROLLER MACHINES ARE REQUESTED TO PUT THEMSELVES IN CORRESPONDENCE WITH US.



FOR PRICE LISTS AND CIRCULARS, ADDRESS,

Dawson Roll Works, Harrisburg, Pa.

C. H. BIRD & CO., KALAMAZOO, MICH.

MANUFACTURERS OF PATENT

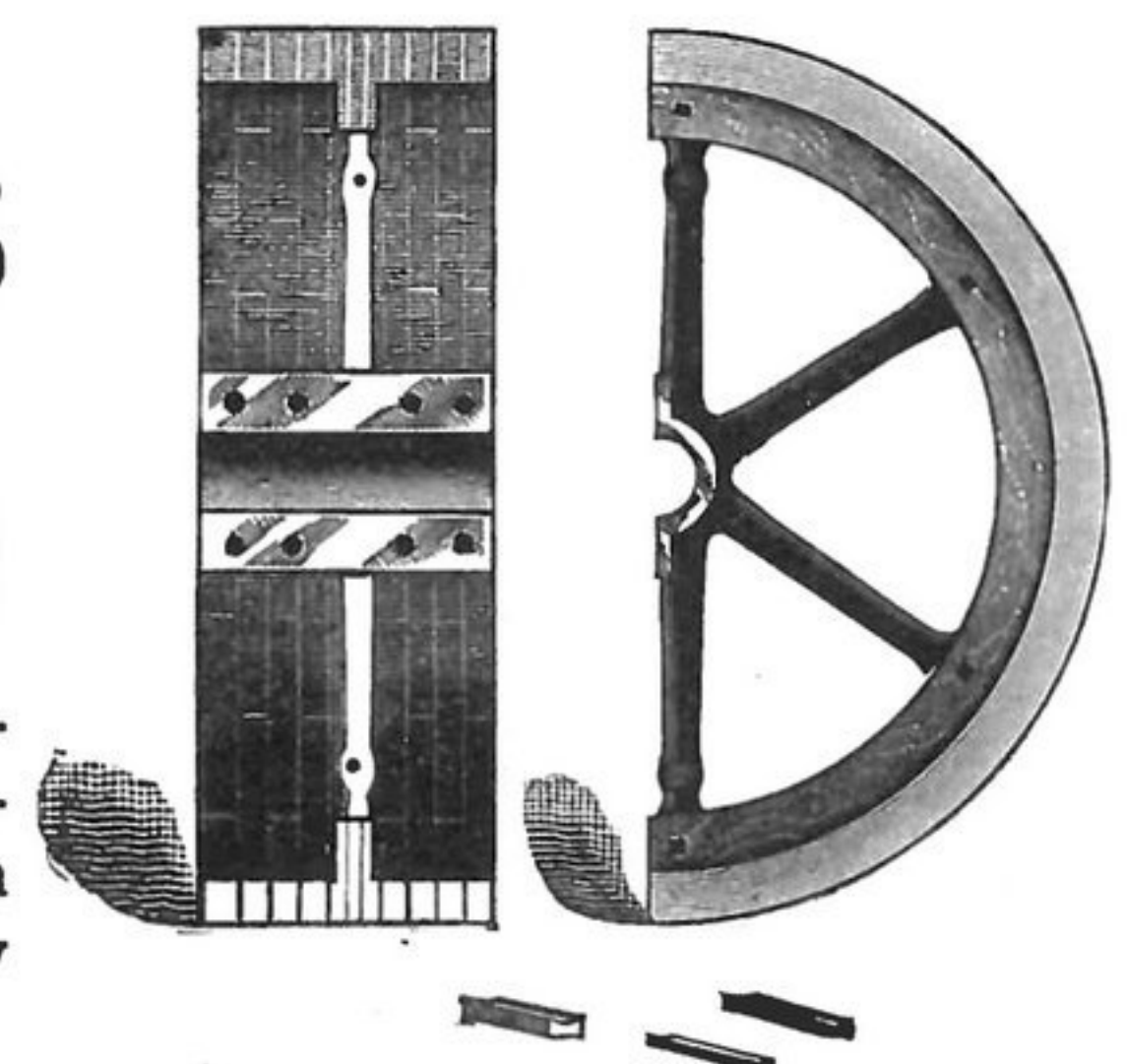
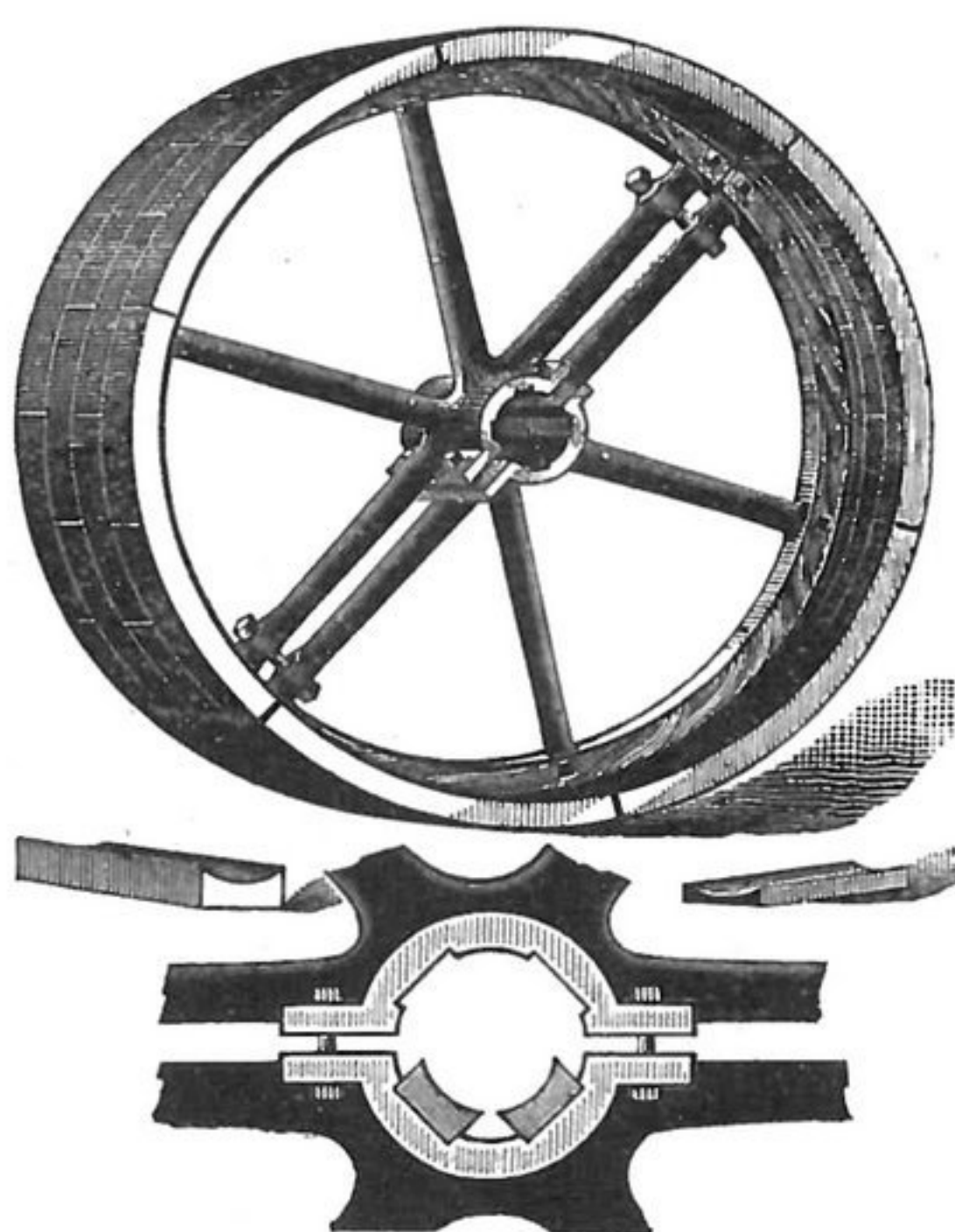
Wood Split Pulleys

WOOD RIM WITH IRON ARMS.

The Best Pulley on Earth!

Is very easily and quickly adjusted to Shaft. Has Patent Iron Bushings Interchangeable, to Fit Different Diameters of Shafts. Has FOUR or SIX Bearings on Shaft. This fastening never slips. Every Pulley strongly built and perfectly balanced.

SEND FOR CATALOGUE AND PRICE LIST.



THE MILLING WORLD

AND
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY. OFFICES: { Corner Pearl and Seneca Streets,
Over Bank of Attica.
McFAUL & NOLAN, - - - PROPRIETORS.
THOMAS MC FAUL. JAMES NOLAN.

SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in unregistered letter at sender's risk.

To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

ADVERTISING.

Rates for ordinary advertising made known on application.

Advertisements of Mills for Sale or to Rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning, to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trades.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

THE MILLING WORLD,
BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order. Four consecutive insertions will be given for the price of three.

WANTED.

Situation by a miller of 10 years' experience. Thirty-one years of age. Married. Can give best of reference. Address, ANDREW YOUNG, Box 82, Mayville, N. Y. 25

WANTED.

A situation in a mill, by a married man of steady habits; 34 years old; no children; had three years' experience in a custom mill; can furnish best of reference. Address, CHAS. BETTIS, Forestville, N. Y. 24tf

WANTED.

At once by a No. 1 miller, 16 years' experience, 38 years of age with small family, well recommended and strictly sober. Can come at once, wages not so much an object as steady work. Will run mill on shares if desired. Address FRANK R. SCHUYLER, North Ridgway, Orleans county, N. Y. 1

SITUATION WANTED.

By a young man 18 years old, industrious and of good habits, a situation to learn the milling business thoroughly in all its departments, where he would have a good home among Christian Associations. Address, J. J. V., Lock Box 514, Hornellsville, Steuben County, New York. 1

SPECIAL ADVERTISEMENTS.

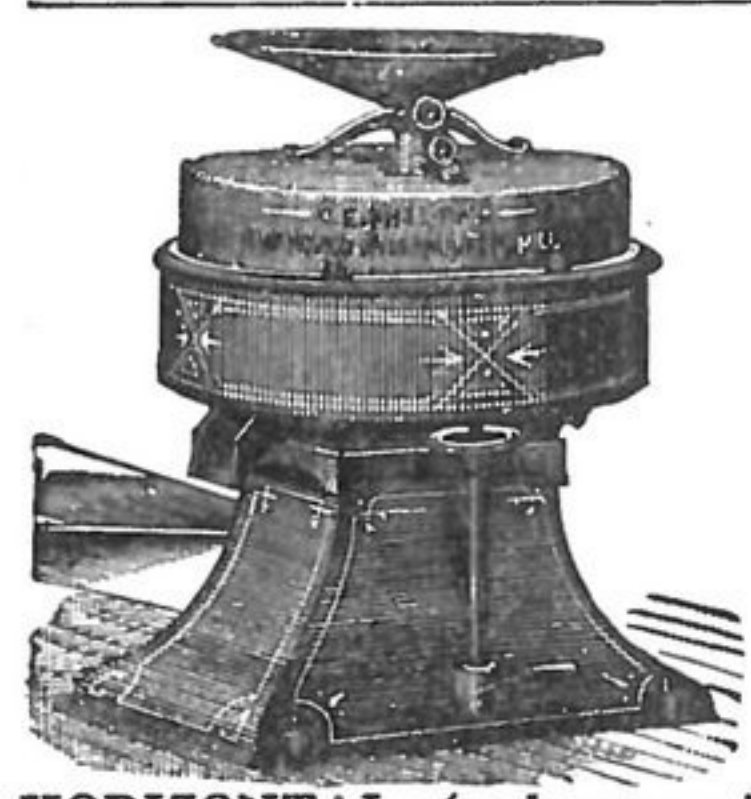
Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 3 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office, 10 cents must be added to pay postage.

MILL PROPERTY FOR SALE.

In Central New York, on reasonable terms and easy payments. For particulars address B, care of THE MILLING WORLD, Buffalo, N. Y. 14

FOR SALE.

10 Single Sets 9x30 Stevens Rolls.
2 Single Sets 7x12 Ferriers Rolls.
2 Centrifugal Reels.
2 No. 3 Niagara Bran Dusters.
2 No. 3 Prinz Dust Collectors.
1 No. 4 Hunter Purifier.
1 No. 6 Garden City Purifier.
1 No. 1 Pyne Purifier.
1 No. 8 Richmond Brush Machine.
1 No. 2 Silver Creek Scourer.
1 No. 00 Becker Brush Machine, over 50 Run Millstones all sizes, all complete.
Above Machines are in first-class condition and practically as good as new. Address J. B. DUTTON, 115 E. Fort Street, Detroit. 18tf



HORIZONTAL (underrunner.)

If you are desirous of obtaining the best Mill or Cob Crusher, send for our catalogue and be convinced that our's fill the bill. Can not fail to please you. They are guaranteed to prove as represented.

C. C. PHILLIPS,
OFFICE, 20 SOUTH BROAD STREET,
PHILADELPHIA, PA.

MILL MACHINERY FOR SALE.

One 24-Inch Portable Mill, wood frame, capacity 15 to 20 bushels per hour; new, best make.
One 20-Inch Portable Mill, iron frame, capacity 12 to 16 bushels per hour; new, best make.
One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.
One 18-Inch Vertical Portable Mill, French Buhr Stone, hung on horizontal shaft; capacity 25 to 40 bushels per hour; new, best make.
One 14-Inch Vertical Feed Mill; best make, new, a bargain.
One No. 6 Dustless Separator; new, a bargain.
Two No. 4 Scientific Grinding Mills, capacity 40 to 50 bushels per hour; new.
A Lot of Elevator Buckets, brand new, best make, any size desired, very cheap.
One No. 1 Full Rigg'd Combined Dustless Separator; new, a bargain.
Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour.
For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y. 5tf

MILLSTONES FOR SALE CHEAP.

Complete run of millstones, curb, spindle, hopper, etc. GARDNER MORSE, Eaton, Madison county, N. Y. 16

FOR SALE.

Three-run mill, repaired, and a first-rate dwelling house, built last summer. I don't owe one dollar, but will sell cheap for cash, to build a mill in Forest county. Address J. S. PORTER, Lamartine, Clarion county, Pa. 2225

FLOUR MILL FOR SALE.

Water power custom and merchant mill; 2-run 4½-feet buhrs, well fitted up; doing large business; 52 miles from New York; close to depot; good reasons for selling. JOHN ORR, Mountainville, Orange county, N. Y. 2225

THE ignorance displayed by the daily papers in their discussions of the grain, flour and milling situation is wonderful. Facts and common-sense are entirely ignored, and the public is misled and misinformed daily by the wild and foolish yarns of the scribblers. The daily papers are fearfully and wonderfully made, and the things they publish are neither fish, flesh nor fowl. One prominent journal repeatedly announces that the corn crop of the United States in 1888 was 2,000,000 bushels. Really it was about 1,950,000,000 bushels. Another states with a show of convincing positiveness that the United States wheat exports last year were 456,000,000 bushels. That was really the total crop of 1887. These same sapient daily scribblers do equally remarkable things in other directions. A red-nosed bum, clad in a wool-shirt ornamented with celluloid front, collars and cuffs, dining mostly off free-lunch lay-outs, will write volubly of the doings in millionaire mansions whose thresholds he never crossed and whose inmates he never saw. A be-draggled tramp in fluttering rags and tottering alcoholism will write learnedly about the fashions. The public reads and believes. The same bum and tramp will discourse on the crops and "flour trust," and the public again reads and believes. It's a queer, queer old world in some respects!

"MANITOBA'S first lot of wheat regularly exported was shipped out in 1887 and amounted to 500 bushels. In 1887 the exports amounted to nearly 12,000,000 bushels, and now the report comes that from the crop of 1889 that province will have nearly 20,000,000 bushels to export."—Exchange. Whoop! Boom!! Bang!!! Fizz!!!! Of course! To be sure! Why Not? As it were! So to speak! Also! Equally trustworthy "reports" come that the crop of 1890 will yield 28,000,000 bushels to export, the crop of 1891 will yield 36,000,000 bushels, the crop of 1892 will yield 44,000,000 bushels, the crop 1893 will yield 52,000,000 bushels, the crop of 1894 will yield 60,000,000 bushels, the crop of 1895 will yield 100,000,000 bushels and the crop of 1896 will yield 999,876,765,654,543,432,321 bushels to export! There is nothing like insanity and delirium in mathematical demonstrations by crop-frauds, crop-fool, crop-liars and crop-Balaams! Meanwhile, the cool fact remains that the 1887 crop of Manitoba wheat did not export 12,000,000 bushels, that the 1888 crop did not export 2,000,000 bushels, and that the 1889 crop, not yet sown, depends wholly upon the "dissipations of an unscrupulous providence," as Mrs. Malaprop would put it. If our esteemed cotemporaries were to adopt the plan of inspecting the figures in the floating items which they publish, we would see less of these wholly ridiculous exaggerations. Manitoba can not be benefited by Canuck fabrications of that sort nor by Yankee repetitions of them. The laboring mountain of lies always brings forth a very feeble, puny mouse, which immediately expires when the watchful "felis veritatis" set eyes upon it. The game is not worth the candle. It does not pay for the wear and tear of the mountain. Less foolish lies, esteemed cotemps!

POINTS IN MILLING.

EVERY mill that carries a considerable stock of wheat should have an elevator for storage. Most of the modern frame mills are not built sufficiently strong to fit them for carrying stocks of grain, even where they are large enough to afford the room. Under any circumstances it is better to have a separate elevator building, and it is wisdom to locate the elevator so that it could contain all the cleaning machinery, except the final finishing-machine, which may properly be placed in the mill to pass the grain to the stock-hoppers. This arrangement relieves the mill building of undue strain and prevents the dust from the cleaning-machines from floating through the mill. I often find a miller trying to store in his mill a far larger amount of grain than it can bear, and in such cases bulged walls, sagged floors and generally discombobulated conditions are noticeable. There is no single argument that may be urged in favor of crowding an elevator or storehouse into the mill proper.

CERTAIN writers in certain mechanical papers appear to write wholly at random, making absurd statements when they have only to consult market records to see that they are displaying their malice and ignorance. Some of these scribblers make it a point to give a periodical whack at the short system of milling, without taking the trouble to see whether the figures they quote are true, and certainly without attempting to learn just what sort of product and what percentage of it are being turned out by the short mills. Wanton unfairness certainly will not hurt any system. Deliberate misstatements are too easily disproved to be dangerous. When a writer says that the best product of the short system is far below the third grade of the long system, while the market sales show the short product selling on an equality with the best long product, the writer gets worsted and the short system is vindicated.

AMONG the first journals to give support to the attempt to make a short system was THE MILLING WORLD. The event has proved the justice of its position when it asked a fair hearing and trial for the proposed short method. It seems curious to read now the misrepresentations and the wholly passionate and unreasoning attacks made on the new system by some journals and writers several years ago, while to read the latest misrepresentations of some of the belated and befogged scribbling longs, months and years after the system has established its right to existence and is in successful application in hundreds of mills, causes the reader to wonder whether it is disordered liver or softened brain that is responsible for some recent "random reflections." Certainly those reflections were "random."

In every possible case the machinery in a mill should be so arranged that advantage may be taken of gravitation. Wherever the arrangement is such that power is required to elevate stock between every two successive machines, there is a large outlay of power that may be lessened. Wherever advantage is taken of the force of gravitation to pass stock from one machine to another, there is a saving of power. Of course it is neither possible nor desirable to construct mills so that the stock may be started in at the top and allowed to pass downward by gravity alone, but wherever there can be a saving effected in this way, without interfering with the work of operating and inspecting, it should be done. The miller who is grinding at a loss may be losing at some point in the useless application of power. No power can be applied without entailing cost, and every unnecessary application means increased and unnecessary cost.

BRIAREUS was fabled by the ancients to sport fifty heads and a hundred hands. Briareus would have been a valuable giant to serve as general-utility man in a modern mill. I often see a miller trying to do what would busy a briarean giant. He goes from the top to the bottom of the mill, correcting a fault here, improving the work of a machine there, inspecting stock in various stages, making adjustments, oil-

ing parts, looking for hot bearings and doing a hundred other things. It stands to reason that a man attempting to do so many things must often fail in some. Never yet have I found a man who could properly attend to all the machines in a roller mill of considerable capacity, even where the arrangement is nearly perfect and every possible convenience is secured. The trouble is that no one man is likely to be a symmetrical operator. He can do some things better than he can do others. He may prefer one process to some other process. If he have in him the slightest trace of hobbyism, he will pay too much attention to those parts of his work that appeal to his hobby and too little attention to those parts only remotely related to his hobby. He may go from floor to floor and from machine to machine regularly and frequently, but his best work is sure to be done where his likes come in, and his worst work where his dislikes incline him to negligence.

WATCH your roll corrugations carefully. It is not economy to run a roll until its corrugations are entirely gone, as too many attempt to do. Beyond a certain point of wear, a roll is imperfect and unsatisfactory. It requires just as much power to run it in that condition as it requires to run it in proper condition. The loss entailed by running rolls too long without re-corrugating is double. It is a loss of power and a loss in quality of product. Keep the rolls in the best possible condition at all times. That is true economy. The cost of re-corrugating is a necessity, not a luxury. No effort to avoid necessary and legitimate expenses can or should succeed.

MILLERS generally are tidy about their mills, but some of them are not altogether wise in their display of tidiness. The other day in the way of business I dropped in on an old acquaintance and found him "sweeping out" right in grinding hours. He was stirring up a cloud of dust of all sorts, drawing down cobwebs, shaking out old coats and bags, dusting out desks and in general raising a choking fog. Is it a good plan to kick up a dirt in that way while grinding? Some of that miscellaneous dirt will surely find its way into the flour that is being made. Some of it will as surely get into bearings, absorb the oil and cause hot parts. There is a proper time to "clean house," even in a mill, and my friend in that instance missed it. There is dust enough floating in a mill at all times, without adding to it the accumulations of days and weeks in a moment of frantic and unreasoning striving after cleanliness.

WHOLE WHEAT NOT GOOD FOOD.

Hygienic cranks argue that wheat should be eaten whole, the bran as well as the floury parts of the grain. Science points the other way. Lawes and Gilbert investigated this subject several years ago and concluded that more nutriment was lost to the human system by the clearing action of the branny particles than was gained by their introduction. As a laxative the coarse flour is not without limitations. It is not uncommon for those who have long used graham as a principal article of food to become dependent upon regular daily rectal injections. Many nice breakfast dishes are made from the entire wheat, whole, cracked or ground, and their occasional use is often found agreeable and beneficial. As for substituting them altogether for fine flour, it appears to be truer food economy to leave the outer shell of the wheat for the ruminants. Used with caution and upon competent advice, it is undoubtedly valuable as a remedial agent; but the unqualified recommendation of any curative agent, however simple, and its hit-or-miss application to all sorts of persons and conditions may seem less dangerous, but are quite as irrational as the calomel and blood-letting treatment of former days.

ROLLER CORN-MEAL MILLING.

Conspicuous among the men who successfully practiced corn-meal milling on rolls was Mr. J. Murray Case, of the well-known Case Manufacturing Company, Columbus, Ohio, who in an article written some time ago gave his experience

in this line as follows: In my first experience in the reduction of corn on rolls, one of the first things I discovered was that the system of handling the breaks in the manner usually employed on wheat is entirely erroneous. If the tail of the first scalper is sent to the second-break machine, and the tail of the second scalper to the third-break roll, and so on through, as it is done in wheat-milling, the results will be scarcely any better than the ordinary stone-ground meal. The reason of this is that the bran and chit become so thoroughly pulverized and intermingled with the meal as greatly to impair its quality. Upon the discovery of this fact the writer took the precaution to apply for patents upon a system of reducing corn to meal which is substantially as follows:

Upon the first break I break the corn down sufficiently to remove almost the entire outer coating of the bran. It is found in practice that this bran peels off in large flakes, almost the size of a grain of corn, and that the chit and black speck upon the end of the berry will usually cling to the bran and pass off with it. If the proper corrugations are used and the rolls are properly set, there is scarcely any gluten or starchy material that will be found in the bran coating. Instead of sending this bran and chit to the second break I send it direct to a tailings or bran roll at the tail of the mill. The head of this scalping-reel is clothed ordinarily with about No. 18 wire and the tail of the same with No. 6 wire. The material which passes through No. 18 is sent to a meal-separating reel, and that which passes through the No. 6 wire is sent first to an aspirator, and thence to the second break-roll. The second break is sent to a scalping-reel, clothed ordinarily with about No. 22 wire at the head and No. 10 at the tail. That which passes through the head of the reel is sent to a meal-separating reel, and that which passes through the No. 10 to a second aspirator, and the tail of this second reel goes direct to a bran or finishing roll. This same process is carried out in the third break also, which number of breaks I find sufficient to reduce the corn sufficiently to send to the meal-separating reels.

The tail of the meal-separating reel is also sent to an aspirator, which blows out the fine fibrous and branny material, and this purified grits is sent to a roll for reducing it to meal and returns to a second meal-separating reel. The tail of this second meal-separating reel is sent to a low-grade roll, together with all of the material which has been blown out by the aspirators. This low-grade stock, together with the bran stock, is bolted in a separate reel and drawn off as low-grade meal. A sufficient amount of first-grade meal may be intermingled with the bran or low-grade meal to bring its grade up to any standard the market may demand, or a standard equal to the stone-ground meal, which would be ordinarily about 20 per cent. of the entire product, leaving the first meal of a very high grade, which in market would bring a much higher price than stone-ground meal. With this system of handling the stock there is never a loss of over 3 pounds to the bushel, and seldom over 2½, or, in other words, 56 pounds of corn will make 53 to 53½ pounds of meal.

The meal made upon this system differs from that made upon the buhr system in the following particulars: In the first place it is much freer from black specks, germ product and light flakes of branny matter. In the second place it is much more granulated, and in baking it operates just the same as granular flour. It will rise higher and produce a much lighter loaf. This is due to the fact that the granulation is round and sharp, and not flattened as in the buhr-ground meal. The result is that when the meal is wet up and baked these round granular particles burst open and expand, causing the lightness of the loaf. There is another feature of this class of meal which is very distinctly observed, and that is it is sweeter to the taste than stone-ground meal. The meal will also keep better and is much less liable to sour, owing to the fact that, being so granular, it gives the air an opportunity to circulate through it and prevent heating. Another fact connected with it is that in the various manipulations which it goes through in the production of meal it gets a thorough aeration, and thus much of the moisture becomes evaporated. If it is desired to make a very high grade

of pearl meal, it is necessary to put in ahead of the rolls a degerminating or hominy machine, but in all ordinary cases this is scarcely justifiable, as it makes a much larger quantity of low-grade meal and the hominy machines require a large amount of power to operate them.

The meal made on this system, without the use of hominy mills, is almost equal to pearl meal, although not quite up to it. The corrugations used for this purpose, which I have found best in practical operation, are one-eighth back-cut saw-tooth for the first break, one-sixteenth front-cut saw-tooth for second break, one-twenty-fourth front-cut saw-tooth for third break, one-twenty-fourth front-cut saw-tooth for the bran and aspirator stock, and one-thirty-second front-cut saw-tooth for grinding the unfinished grits. For a 300 to 350 barrel corn-meal mill it will require six double sets of 9x30 rolls, four scalping reels 12 feet long, two meal-separating reels 12 feet long, four aspirators and one corn-cleaner. This constitutes the entire machinery for a mill of the capacity referred to. It is possible to make a very excellent result from the use of but one double set of rolls and one meal-separating and aspirating machine. The power required to operate such a mill on this short system would not exceed 10 to 12 horse-power to produce from 35 to 40 barrels in 24 hours.

A MISERABLE FAILURE.

In our last number there appeared an article with the above title, referring to the bitter failure of the Burlington Railway strikers, and experiences of the past thirty days have combined to render a repetition of that headline gloomily appropriate at this time. The Knights of Labor have for some years exerted a great influence over the minds and conduct of street-railway workers in New York city. During the past month that order of workmen decided to "tie up" the surface street-car lines of the metropolis until certain changes, which they had demanded, might be made. The exactions of the Knights were to the companies seemingly unjust, and hence they decided to resist them. The companies proceeded to employ men to operate their respective lines and called upon the authorities for aid in preserving the peace and conducting their business, while the Knights were warlike and determinedly against the employment of just and peaceful measures for the solution of the problem. As usual, they were unmindful of the fact that they were in a land of liberty and sought to exercise their usual tyrannical means for gaining their point, seeking to outlaw and drive out of existence all who are not of them. And as usual they met a miserable failure. Numbers of them are in jail for outlawry, some are charged with crimes that will send them to prison, while others may end their unlawful career upon the gallows. A few of them have been terribly shot and otherwise wounded, and some are dead. But all of this is as nothing compared with the hunger and destitution and privation that will follow a piece of mid-winter folly like this. When will the toiling men of this land of the free learn that strikes recoil their blows upon their own heads? The fact is that the whole groundwork of trades-unions is wrong. The false principle of compulsory membership is the underlying cause of disaster; and so long as that false principle obtains, so long will the outlying elements be so great as to bring destruction upon every effort at advancement. The poor men of the Burlington system and of the New York street-car service have our sympathy, not so much on account of their pitiable condition as for their midnight ignorance.—*St. Louis Miller.*

SHORT MILLING TESTED COMMERCIALY.

Says our esteemed Kansas City cotemporary, "The Modern Miller:" "Every little while some ambitious writer for the milling press makes an effort to create an impression on the public mind by taking a shy at the short system. It is very natural for some people to be critical, and perhaps if it were not for their criticisms the short system would not gain favor so rapidly as it does, for every time one of these critics attempts to make an argument against it, some chap who has

been quietly attending to business and demonstrating in every-day milling the falsity of the critic's claims, in the same quiet way throws out a few rigid facts that knock Mr. Critic off his feet. Time after time has this been done, but all the same your critic who, having no practical knowledge of short-system milling, never knows when he is downed, keeps banging away like a goat butting at a stone wall. We say he has no practical knowledge of short-system milling, and we make the statement advisedly, for without exception the professional critics who are to-day opposing the short system through the milling press are not in the short-system milling business and have not the necessary experience to make them reliable authorities. On the other hand those who favor the abbreviated plan do not place themselves on record until they have demonstrated to an absolute certainty that as good or better milling can be done on the short as on the long or gradual reduction system. They have no good reason for doing so. As the contest stands to-day, it is the practical miller against the professional writer, and here is a case in point:

Mr. John W. Purves, general manager of the flour department of Degan, Breckenkamp and Company's business at Washington, Mo., submits to "The Modern Miller" some "reflections that are not at random, elicited (unsolicited) by the random reflections of one Harry S. Klingler, published in the 'Milling Engineer' for December." Mr. Purves says: "In said article there is a spiteful fling at the short system, implying that the fellow with the bob-tail mill can only make his best flour equal to the bakers', or third grade of the long winded chap, Klingler. Now for the truth and facts as we experience them. We have a short-system mill. All we use in the grinding of wheat is four double sets of rolls. Our cleaning is as good as any I have seen, and better than most. We make in eleven hours' run about 40 barrels of flour, of which 4 are low-grade, 6 patent and 30 straight. We ship to Brockenmeier and Sieving, commission merchants, doing business at St. Louis, to whom reference may be made at any time. We have been getting right along, notwithstanding the recent dullness in the flour market, fifteen cents more than the highest quotations per barrel for straight. When the highest quotations were \$4.85, we got \$5.00. The highest now is \$4.75, and we are getting \$4.90. Our last shipment of low-grade sold for \$3.45, which is straight price for 'choice.' Our patent stands well up among the patents sold in the St. Louis market. This is what at least one 'bob-tail' is doing. Now let any long-tail that ships to the same market 'rise and explain.'"

GRAIN GROWING IN RUSSIA.

Abundant harvests for two consecutive seasons have given Russia increased temporary importance as a wheat-producing country, especially from the American standpoint, because the short crop of the United States in 1888 was more than offset by the large crop in Russia, which prevented the increase in price justly expected by American wheat-growers. In view of these circumstances information about Russia and her capacity becomes interesting and important. There have been various works published from time to time treating of the conditions of agriculture there, but until quite recently there was an entire absence of reliable data as to the importance of exporting centers, especially those in the Sea of Azov. This want has now been met by the publication of "The Grain Trade at the Principal Ports in Russia and Konigsberg," by M. P. Federov. The information it contains is the outcome of the work of a committee representing railway interests, who visited the ports during the spring of last year. There are four leading ports on the Sea of Azov, Rostov-on-Don, Taganrog, Marionpol and Berdiansk; and of these Rostov takes first place, by reason of its favorable situation on the River Don, commanding the Sea of Azov and being the terminus of three railroads. Rostov draws its supplies from the central basin of the Volga, lowering of freights having brought back that trade, after being for a time diverted to the Baltic, from the basin of the Don, including Don Cossack territory, Varonej and the Eastern part of the province of Kharkov, and also from the Eastern

part of Cis-Caucasia with the southeastern portion of the Kuhan territory, Ter territory, province of Stavropol and the southwestern part of Astrakan.

Wheat naturally occupies the first place in grain exports, the superior qualities, Azima, hard wheat, Saxonska and Ghirka, being shipped to Greece, Italy, France, Spain, Switzerland, Germany and Belgium, and the inferior sorts to Great Britain and Holland. Rye is shipped to Germany, Belgium, Holland and Norway, and barley to France, Spain, Belgium, Holland and Great Britain. Oleaginous seeds formerly were an important item in the Rostov exports, but these have greatly fallen off during late years. The grain, which is conveyed to Rostov by the River Don, different railways and carts, as a rule arrives in a very dirty condition, some lots being as much as two-thirds dirt. In former years exporters dispatched agents long distances into the interior to purchase grain, but with the fall of prices in foreign markets and the unreliable character of the wheat this is quite changed, and they now, as a rule, wait for it to come forward on consignment. Taganrog ranks next to Rostov in importance, in comparison with which port it is not so suitably situated for collecting grain; it has no depth of water, sea-going vessels having to anchor from fifteen to twenty miles from the town; and its warehouses are unfavorably situated; thus the expenses on grain are heavier than at Rostov. Several projects have been brought forward to improve the port, but none have been entertained, the cost being considered too great for the importance of the work. The statistics of exports from Taganrog show a steady decrease in wheat and oleaginous seeds, but an increase in rye and barley. The navigation at Taganrog generally opens in March and closes at end of November, and during the last six years the port has been closed on an average for three months and six days. Marionpol and Berdiansk are rivals of Taganrog, and of the two the latter, after a period of declining exports, has shown a decided revival during the past three years. The general trade of the Sea of Azov is greatly interfered with by the shallowness of the Kertch Yenikale Straits, but an endeavor is being made to remove this by dredging, so as to obtain a uniform depth of 19 feet for a distance of 11,316 yards and 20 feet on the Tuzlo bank.

AN ALLEGED WINTER-WHEAT COMBINE.

A St. Louis dispatch dated March 7 says: "For the last three days the millers of the winter-wheat states have been holding a secret meeting here for the purpose of forming a combine to control the flour output. Millers representing Missouri, Kansas, Iowa, Arkansas, Texas, Illinois, Tennessee, Minnesota and Wisconsin were here and were joined yesterday by the Southeastern states. They deny that they have formed any trust, and while this is true in the light that profits will not be divided, it is equally certain that a combine has been formed to control the flour market. It is also said that the winter-wheat market is in the hands of the combine and that an attempt will be made to manipulate the winter-wheat market. A rule regarding commissions in flour was adopted. The commissions have been excessive, and the rule provides that not more than five or ten cents shall be charged."

EARLY RIPENING WHEATS FOR CANADA.

A report from Ottawa, Canada, dated February 15 says: In the report of the department of agriculture laid on the table this afternoon the following reference was made to the results of further testing of Lodoga wheat: The report is encouraging and the relative earliness of this variety is now well-established. Favorable reports have been received from farmers who have tried it, not only in Manitoba and the Northwest Territories, but also in the maritime provinces, especially Prince Edward Island and New Brunswick, where early maturing grain is much needed. Chemical analysis shows that it will in quality compare favorably with the most esteemed sort. In pursuance of this important subject of the early ripening of cereals, correspondence has been opened with the government of India for the purpose of obtaining some early maturing sorts of wheat and barley

which are grown in high latitudes and in the Himlayan mountains. The efforts have been successful. The government of India has taken a warm interest in the subject, and a specialty has been made of early ripening sorts of wheat and barley grown in six different districts of that empire, and at elevations varying from a few hundred to 11,000 feet. Those samples are now on their way and will be tested the coming season at several experimental farms.

NUTRITIVE VALUE OF BRANNY FOODS.

Following is the summary of investigations made by Drs. N. A. Randolph and A. E. Rousel, of Philadelphia, Pa., concerning the nutritive value of bran in foods: The experiments of Rubner leave no doubt that a white bread contains more nutriment than one made from the whole wheat does, but this does not render it a desirable foodstuff for exclusive use. On the contrary, a weaned but still quite young omnivorous mammal thrives better upon an exclusive diet of bran bread than on white, and presumably because the earthy and alkaline salts are present in greater abundance in the former, and also because the indigestible constituents tend to give to the intestinal contents that bulk and consistence which are so essential to the hygiene of the digestive tract. But, as shown by Edward Smith and others, the branny scales are needlessly irritating and unduly hasten the passage of food but partially digested. The end which popular hygiene attempts to effect by retention of the bran in breadstuffs can be better attained by other means. Thus the nutritive salts of food so frequently lost in the ordinary methods of preparation are readily restored by the concentration of the liquor in which meats and vegetables are cooked into a soup stock, as is practiced in almost every French kitchen. Again, the various fresh green vegetables used as salads yield in abundance these inorganic foodstuffs, the presence of which is indispensable to normal tissue activity. A further advantage of these and other succulent vegetables lies in the fact that their cellulose, while efficient in giving proper bulk and consistence to the stools, is, compared with bran scales, soft and unirritating to the digestive tract. From the facts, old and new, which have been presented, the following deductions appear to us justifiable:

1. The carbohydrates of bran are digested by man to but a slight degree.
2. The nutritive salts of the wheat grain are contained chiefly in the bran, and therefore, when bread is eaten to the exclusion of other foods, the kinds of bread which contain these elements are the more valuable. When, however, as is usually the case, bread is used as an adjunct to the other foods, which contain the inorganic nutritive elements, a white bread offers, weight for weight, more available food than does one containing bran.
3. That by far the major portion of the gluten of wheat exists in the central four-fifths of the grain, entirely independent of the cells of the fourth bran layer, the so-called "gluten cells." Further, that the cells last named, even when thoroughly cooked, are little if at all affected by passage through the digestive tract of the healthy adult.
4. That in an ordinary mixed diet the retention of bran in flour is a false economy, as its presence so quickens peristaltic action as to prevent the complete digestion and absorption, not only of the proteids present in the branny food, but also other foodstuffs ingested at the same time.
5. That, inasmuch as in the bran of wheat, as ordinarily roughly removed, there is adherent a noteworthy amount of the true gluten of the endosperm, any process which in the production of wheat flour should remove simply the three cortical protective layers of the grain would yield a flour at once cheaper and more nutritious than that ordinarily used.

SOMETHING ABOUT THE SEAM DIRT.

Referring to the unsettled and unsettleable question of crease-dirt or no crease-dirt, Eugene W. Virgin, of Long Pine, Nebraska, writes to "The American Miller" as follows: "There has been a great deal written in the milling papers about crease-dirt, and every one seems to have something different. Now, all the different writings are from different

millers, and there seems to be a difference of opinion, from no crease-dirt up to five per cent. crease-dirt. I find by examination of my crease-dirt department that there is a great difference in crease-dirt in the same wheat that comes to my mill. I also find a difference in the way I make my first-break on the same kind of wheat. I am cleaning my wheat on two machines, and cleaning it twice before it goes to first-break. Now, by first splitting, which is theory, the wheat and taking it to scalper, I find dark flour mixed with my first-break stock. By opening the first-break just enough to touch the wheat, I find small, fine bran mixed with it. By closing the rolls so as to break the wheat finer or smaller than splitting it, I find no crease-dirt, but instead a white flour which is too good to go to low-grade flour, but goes in with second-break stock, and there seems to be no crease-dirt, but instead fine crease-bran which will not mix with flour. By this I find why some millers get crease-dirt, or some kind of dirt, and why others claim there is no crease-dirt. I think the different opinions come from the way the first-break is made and the way the wheat is cleaned, and I know the better your wheat and the better it is cleaned, the less of the so-called crease-dirt you will find."

REPORTS on the experiments in planting frosted and rusted seed wheat in the Northwest do not, on the whole, give encouragement to the wheat-growers who propose to risk the loss of their season's work in 1889 by planting dubious seed. There is not a single report that gives hope of good results from bad seed. The millers of the Northwest, who are quite as much interested in the matter as the farmers are, should use their influence with the wheat-growing farmers in favor of sowing only good seed.

HERE is a specimen Canadian wheat-yield item: Jellett & Ottewell, of Clover Bar, N.W.T., finished threshing on Monday, Dec. 31. One hundred and four acres of barley yielded 3,262 bushels or 31 bushels to the acre; four acres of wheat yielded 168 bushels or 42 bushels to the acre, and 42 acres of oats yielded 4,123 bushels or 98 bushels to the acre. Of the oats, however, one field of 15½ acres yielded 1,758 bushels or 113½ bushels to the acre.

SPECIAL NOTICES.

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GENERAL NOTES.

CALIFORNIA has five counties each containing a greater extent of territory than the great state of Massachusetts with its 2,000,000 inhabitants, its 352,000 wage-workers in factories, its \$300,000,000 capital invested in manufacturing enterprises and its sixteen cities of more than 20,000 each. She grows one-fourth of all the barley in the United States and produces one-third of all the gold. Only three states excel her in forest acreage; only fourteen states contain more miles of railroad. She produces one-tenth of all the wool in the United States. Only two states raise more hops, only five produce more salt, only nine more soap. Her fruit future is beyond conception, for she already has 300,000 orange, lemon and olive trees and 4,000,000 deciduous fruit trees, while her vineyards are more extensive than those of any other ten states in the Union.

COTEMPORARY COMMENT.

From what could be seen and learned, the Winter-Wheat Millers' Convention at Indianapolis was a pronounced success. True, no wonders were accomplished, still the harmonious proceedings and the desire of most of those present to unite and work together show that the spirit of fraternization is hovering in sight and that the day of cut-throat competition is about to be brought to a close. Millers have had a great deal of difficulties to contend with in the last decade or two, some of which were of their own doing. They now see how to obviate some of these, which they propose doing, this, too, without any detriment whatever to the wheat-raiser or the consumer of their product.—*St. Louis Merchant, Miller & Manufacturer.*

The Bread Boom progresses gaily, as would any other "boom" that had as its object the sale of an article of actual necessity, till it is overdone. There is plenty of room for many more thriving bread companies yet, and they should meet with the support they deserve till the shady promoters, who don't care whether they exploit bread or gold so long as it is the fashion, come and spoil the market with a lot of effete old bakers' shops. The adoption of Dr. Daughlish's system will lower the average of the proverbial peck of dirt which every one is supposed to consume before they die.—*London, England, Financial Times.*

The greatest drawback to any great increase in the price of wheat is the low prices and flat markets in other grains, as well as in live stock and other farm products, for it is a well attested fact that it is a hard matter to get the price of any of the leading agricultural productions much above the relative value of the others, especially as they may to a considerable extent be used as substitutes for one another.—*American Miller.*

It looks very much as if there are a few professional crop writers who, like statistician Dodge, cover too much territory for their real breadth. Their information gets too attenuated, before they get around, to be of the slightest use to any body, while people who shape their affairs to move in harmony with the sensational hints of these fellows generally curse their folly when the end comes. One of them in a

recent presumably inspired article, covering the ground from Kentucky to Tacoma and Toronto to Texas, unwilling to let Dakota slide without a touch of his artistic skill, gravely informed his readers that the ground is well prepared and the spring prospect good. He is evidently willing to let Dakota's wheat grow in February but he can be safely counted on to do it up in July.—*Minneapolis Market Record.*

Restriction as applied to milling does not appear to be an unbounded success. It may go in sugar-making or steel production, or the manila and sisal trade, but among flour-millers it is somewhat elastic. For instance, we read that during the "restriction period" Minneapolis has been turning out about 83,000 barrels of flour per week, while last year the weekly production was but 93,000. This little sugar-bob of information will be very interesting to parties concerned.—*St. Louis Miller.*

YE OLD MILL-WHEEL.

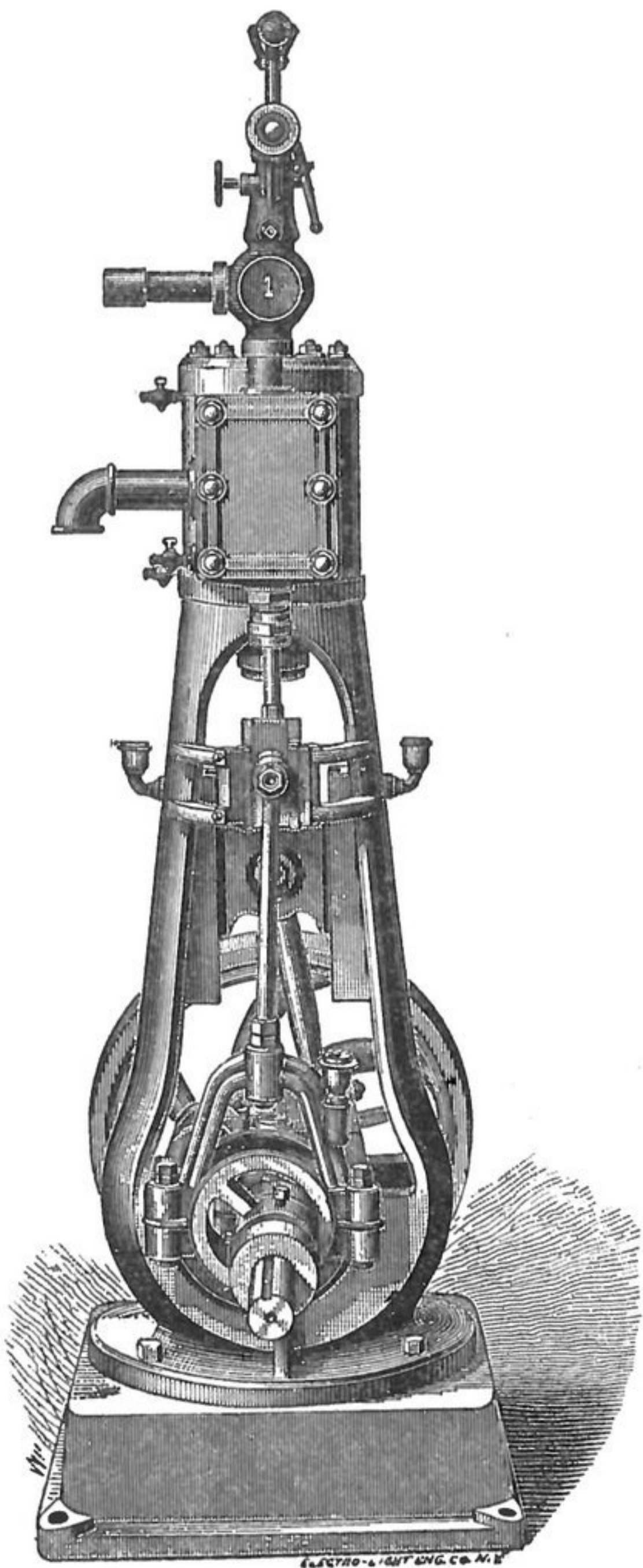
I am the mill-wheel, besung from antiquity!
'Tis I who inspire so much rhymed obliquity!
Look at me now as I go wobbling lazily,
Setting the cranks with their quills rhyming crazily!
I am a jay of a style architectural
Born afar back in the æons conjectural!
Mostly my mission is stirring fanatical,
Rhyming rhetorical, gruesome grammatical!
List to my splashing so lush-mushy-gushily—
That's what the poets all imitate slushily!
Hear how I creak, how I groan so amazingly—
That is the music hits poets so dazingly!
I am green-moldy and green maggots sit on me,
Yet I'm no moldier than most poems writ on me!
Slabbering and jabbering and druling so dribblingly,
Ever I'm crazing fool-rhymesters so scribblingly!
Feed me a poet, be-rhyming, rhetorical!
Let me caress him with whacks paregorical!
Pour him right down where he gazes so yearnfully
And list to me "sing" as I churn him gol-dernfully!
March, 1889. Bang.

FROSTED AND RUSTED SEED WHEAT.

Concerning the experiments with seed wheat in the Northwest a Minneapolis report says: There have been a great many tests made of the germinating qualities of the wheat produced in the northwest last year. These have been made on both frosted and rusted sorts. The result of these experiments have all been about the same. A large percentage has shown vitality enough to grow under favorable circumstances. Much of that doubtful seed will be planted and with favorable surroundings in weather and soil will do fairly well, but without such favorable conditions there may well be some anxiety for the outcome. Prof. Green of the state university says of the state experiments: This wheat was germinated at a temperature ranging from 40° at night to 65° in the day; which is a higher and more favorable temperature than wheat ordinarily has in the open ground. This wheat was planted one-half inch deep and had perfect drainage and the proper amount of moisture, while in the open ground the conditions would not probably be so favorable. The season at which these experiments were commenced was very unfavorable for plant growth. The days in January are very short, and plants get comparatively little effect from the very oblique rays of the sun. Although as high as 50 per cent. of some of the wheat which was soft as well as shrunken has germinated, yet its apparent vitality is not so great as that of the grain which is shrunken but hard. In every test made with wheat that was hard, although it might be shrunken, by rust or other cause, and graded only as chicken feed, there was a good per cent. of germination and strong growth. Wheat which does not weigh over 40 pounds to the bushel uniformly gave a low per cent. of germination and a little inferior growth, compared with others of greater weight per bushel.

In France the weather has been boisterous, and cold, rainy and snowy alternately, and work on the farms has been hindered. In Holland, Belgium and Germany wintry weather has prevailed and much snow fell, but now it is milder.

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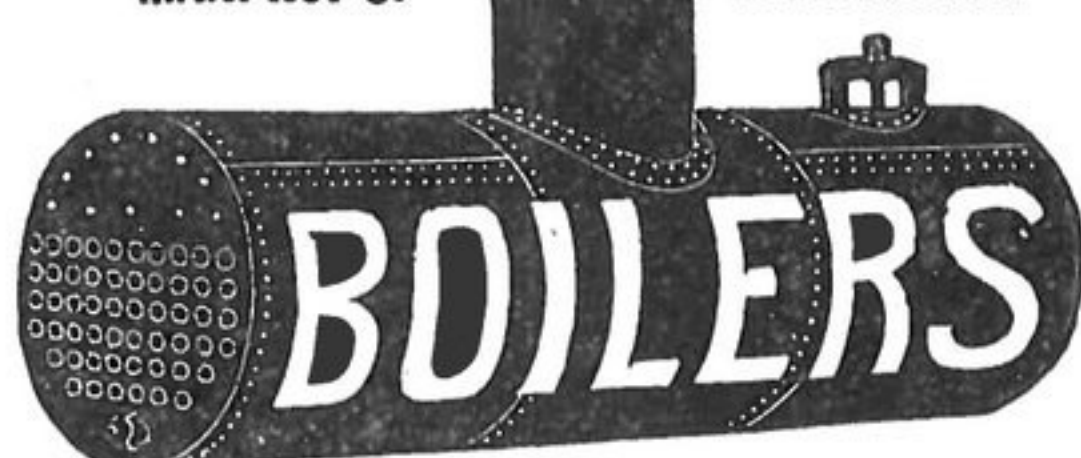
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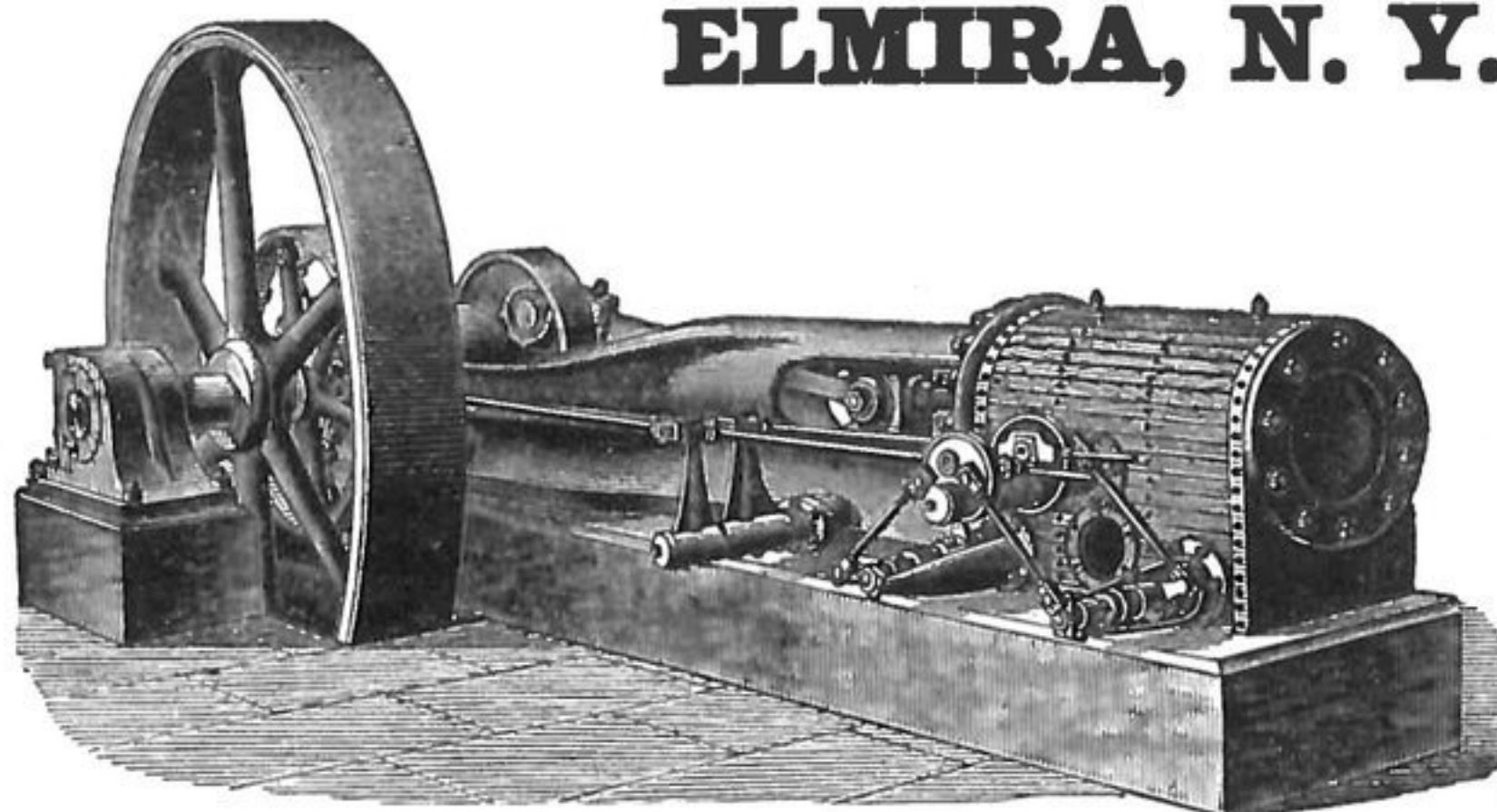
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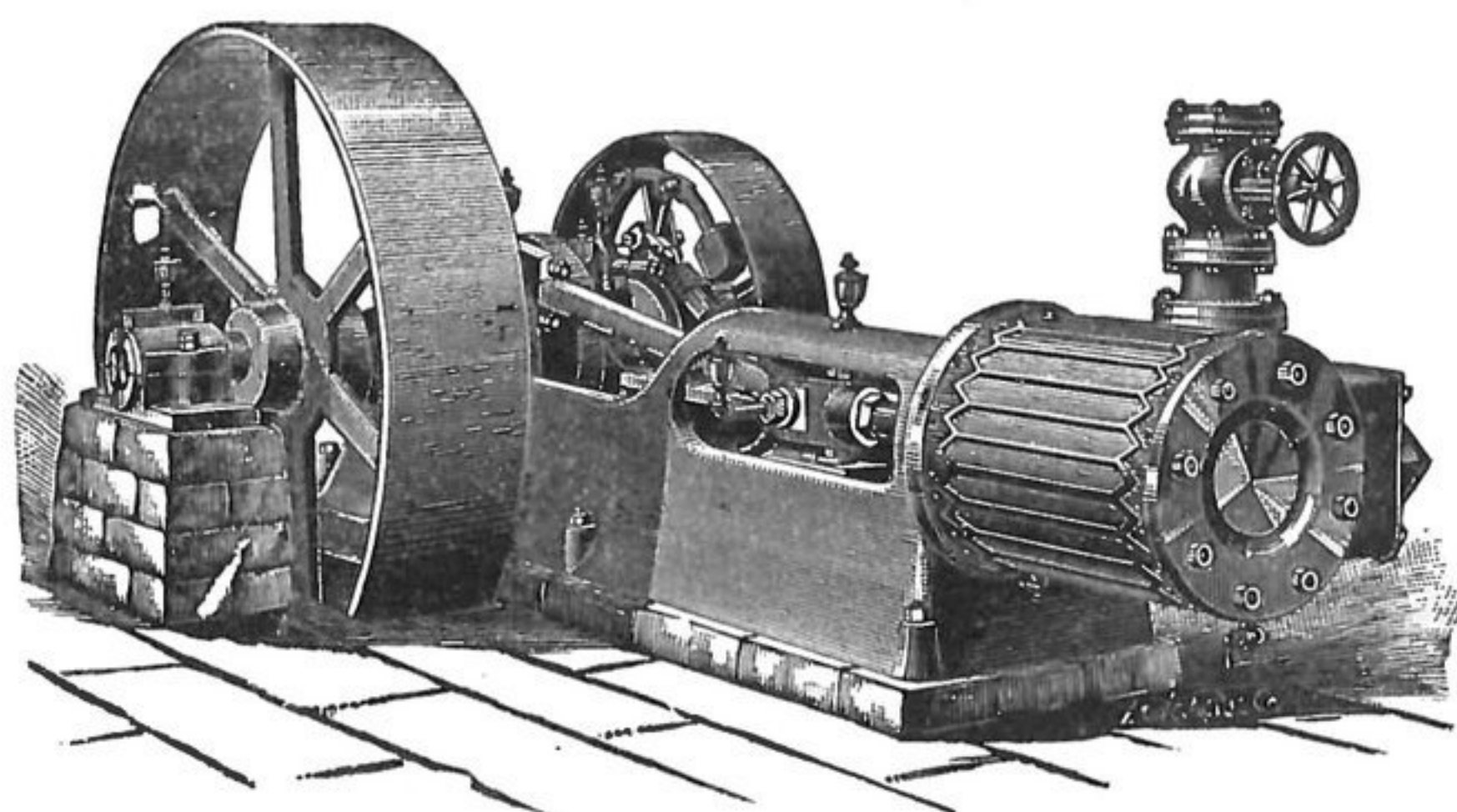
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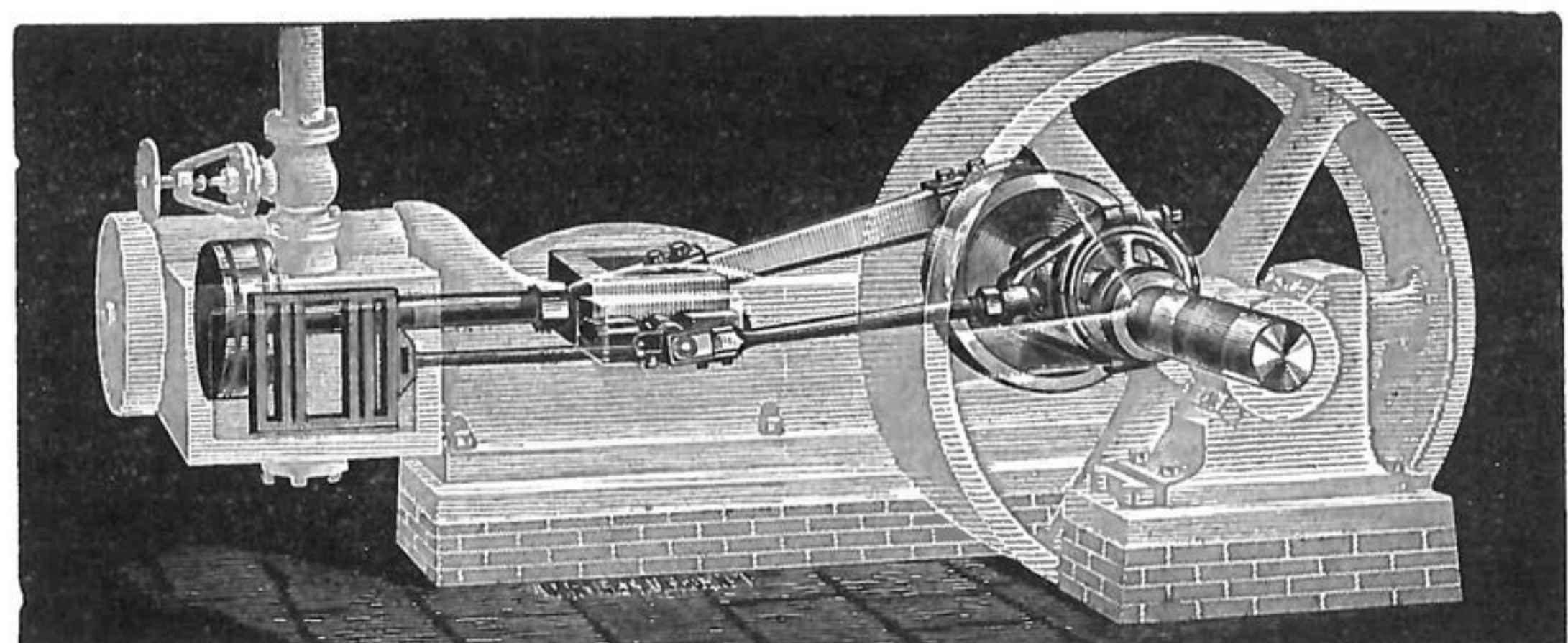
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Geo. Willis, Horse Cave, Ky., will build a flour-mill.

P. Kuchenberg, grain-dealer, Theresa, Wis., assigned.

H. B. Rossell, Best, N. C., builds a flour and corn mill.

Geo. W. Smith, Lexington, Ga., will build a grist-mill.

J. B. Lillie, Franklin, Tenn., will rebuild his flour-mill.

The Trimble, Tenn., Roller Mill Co. are building a mill.

W. S. Bumpus, Salineburg, Ky., wants roller machinery.

The Henrietta Milling Co., Pendleton, Ore., incorporated.

Summerton & Cowley, millers, Ellendale, Dak., dissolved.

The Farmers' Alliance, Anson, Tex., will build a flour-mill.

Burnett & Morland, millers, Pratt, Neb., sued in foreclosure.

The Phoenix Flour Mill, Hickory, N. C., adds new machinery.

Reynolds & Lewis, Atkins, Ark., project a flour and grist mill.

Geo. Heck, flour and feed, New Orleans, La., lost \$4,000 by fire.

C. W. Gold & Co., millers, Faribault, Minn., will quit business.

T. A. Ballenger, Arkadelphia, Ala., wants grist-mill machinery.

W. C. Pelham, Maysville, Ky., will start a corn-cob pipe factory.

R. A. Carr and F. W. Tolle, Maysville, Ky., are building a roller mill.

Wm. Rounds, of Rounds & Hartens, millers, Sioux City, Ia., is dead.

J. W. Shadewald & Co., flour & feed, Minneapolis, Minn., dissolved.

J. B. Kehl's flour-mill, Chippewa Falls, Wis., damaged by fire; insured.

T. Simpson's elevator, Pratt, Kan., burned; loss \$10,000; insurance light; fire incendiary.

The Gothenburg, Neb., flouring-mill burned; loss \$30,000; insurance \$9,000; fire mysterious.

Warner & Boder's Southern Rice Mill, New Orleans, La., burned; loss total; insurance \$16,000.

J. F. Miller, grist-mill, Jefferson, S. C., is offering to compromise with his creditors at 70 cents on the dollar.

At the meeting of the representatives of the western boards of trade held at Winnipeg on the 15th of February, it was unanimously resolved to petition the Dominion government to permit Northwest representatives to meet annually for the purpose of fixing standards for grain grown in Manitoba and the Northwest Territories. They do so on the ground of the unsuitable date of the yearly meeting held in Toronto, which is largely controlled by the necessities of the barley trade of Ontario, and the fact that Manitoba and the Northwest have but one-tenth of the voting power of the meeting to back their views when their interests clash with those of the eastern representatives.

Territorial Statistician Sheridan makes the startling statement that there is a shortage of 3,400,000 bushels of wheat for bread and seed in Dakota. His recapitulation for this serious state of affairs is as follows: Proportion of the wheat crop of 1888 on hand for consumption or sale March 1, 1889, 20 per cent. The distribution of wheat in the Territory 30 per cent.; shipped out of the Territory 70 per cent. On hand for consumption or sale, grown in 1887, or previous to last year, 6 per cent. Number of bushels of wheat on hand from the 1888 crop 7,969,153. Number of bushels shipped out of the Territory 26,563,844. Total number of bushels of wheat raised in the Territory, 1888, 37,948,348. Shortage of wheat for seed and bread 3,451,351 bushels.

Says Chicago *Daily Business* of March 2: The first item of news to get into general circulation on Change this morning was that the 600,000 bushels cash wheat trade had been clinched, Orr & Comes having given a check in payment of the 250,000 bushels that may remain in store here until May. The exact amount of the check is not known but it was not far from \$201,250. The May contracts having been put in at \$1.10, this would make the premium paid about 6½ cents. Of the remaining 350,000 bushels 92,000 bushels have already been loaded on vessels and 60,000 bushels have gone out by rail. By the end of next week 40,000 bushels more will have been shipped by rail and a part at least of the other 168,000 will be transferred to vessels. There are some interesting details about this trade not yet published. The trade was to have been consummated on Saturday, February 16, but a 4-cent spurt that day knocked it in the head. It was closed on the 19th, however, and contracts for 250,000 to May were given W. H. Harper at \$1.10, 100,000 bushels coming from Schwartz & Depee, and 150,000 bushels from Baldwin & Farnum. A few days ago Orr & Comes turned over contracts for 350,000 bushels more at \$1.10. What the May contracts cost the Buffalo parties can not be stated to a certainty, but it is shrewdly surmised that the last lot of 350,000 bushels averaged less than \$1.07, and the first 250,000 bushels may have been bought under \$1.00. The cash wheat did not cost the \$1.16½ that would appear on the surface, that much may be taken for granted. The Orr & Comes' check was not given until Harper on behalf of the elevator company guaranteed the condition to May 1. This concludes the biggest single cash wheat trade that ever took place in this or any other market. It was between W. H. Harper for the elevator company and A. P. Wright & Sons for account of Schoellkopf & Mathews and A. R. James, of Buffalo, N. Y.

The wheat situation in the Northwest is summarized by the Minneapolis *Market Record* as follows: C. A. Pillsbury has returned from the east and expresses entire confidence in the future of wheat and flour. Minneapolis millers say they have bought more wheat for May than there is wheat in Minneapolis, Duluth, St. Paul and country elevators. They believe wheat will be short next summer and have bought the future because they want the property. They say when the poor wheat is taken out, there will be all of that short of enough to meet the May contracts and some one is going to get left in the gap. Although a great deal of that wheat sold for May has gone into the hands of parties that have set it afloat in the channels of futures, and it may have been sold and bought by a great many people, it will be found that it has finally lodged in the hand of some miller that has the contract laid away and will call for the wheat. In their opinion that fact alone will force high prices. It is admitted by the country elevator men that they have sold wheat in this market against their stocks, but they deny having sold as much contract wheat as they own of all kinds. Some companies have but little sold here, as they have been afraid of an attempt to force the very thing now threatened. Others say a few men have bought themselves into a hole, and are now working on the fears of all such as do not believe the same way as themselves, to get up prices to let them out of it before the cover is put on. While they admit the millers have some wheat bought for May, they say the millers don't want all contract grade, but bought that, as it was a simpler matter than to buy the others, and it would be easy to exchange the one for the other when the time for doing so arrives. Another view of the subject is taken by parties constituting a crowd between the elevator people and the millers. They say the millers that own the bulk of the May wheat have bought it, not because they needed it, but had to take it to save a collapse in prices. It has usually been bought, they say, through the most noisy brokers, making it cost the most money possible, that the noise of it would have the greater effect in driving away all influences tending to depress prices at home and to carry consternation to the world of scalpers in other cities. The bears laugh at the idea of cornering a market where the rules actually prohibit corners and declare, as the Minneapolis rules do, that a manipulated market may be appealed from and a committee shall fix a settling price based on the actual value for milling or shipment.

COMMENDATORY LETTERS.

THEY LIKE THE AVERY BUCKETS.

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GENTLEMEN: Your steel elevator buckets are unquestionably the best cups on the market, and we find ready sales for them to our trade. We find that when parties have once used them, or even examined them, they will have nothing else in the way of an elevator cup. You may expect materially increased orders from us in the future. Wishing you much success, we are

Yours very truly, THE BRADFORD MILL CO.

PERSONAL MENTION.

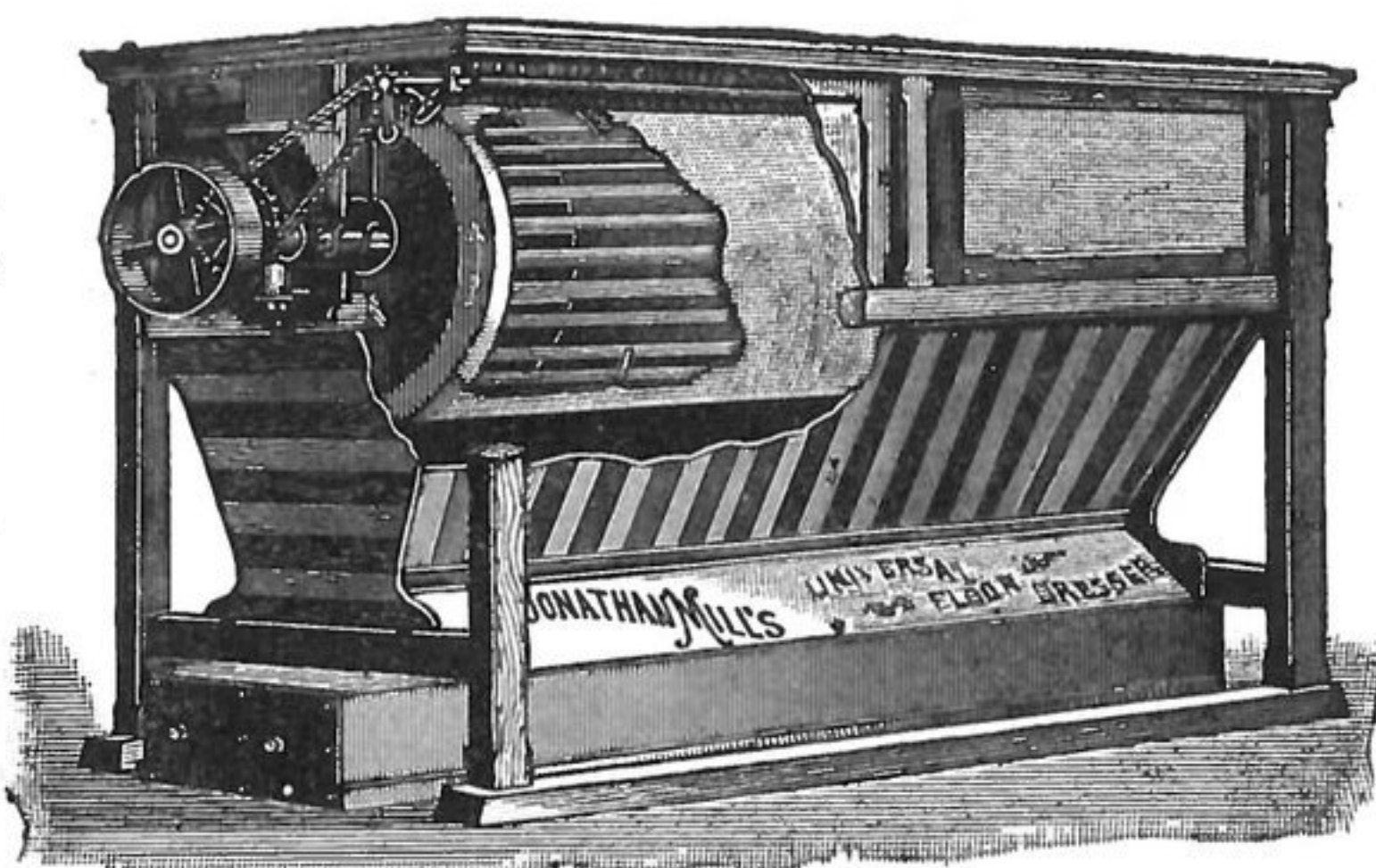
Mr. George Hamilton, a prominent miller of Toronto, Ontario, Canada, was among the recent visitors to the sanctum of THE MILLING WORLD.

Mr. John M. Turner, who has for some time been connected with a grain and flour paper in Minneapolis, Minn., has severed his connection with that paper and accepted the management of a flouring-mill at Mandan, Dakota. Mr. Turner, as representative of the grain paper in Minneapolis, labored under great difficulty, as the management of that journal has been wholly insane and imbecile for some time. In his new sphere of labor Mr. Turner will have abundant opportunity to show his business qualities. Success to him!

BOOKS AND PAMPHLETS.

The North American Review for March is a strong and striking number. It opening with a charming description by General Sherman of "Old Times in California." There is a valuable symposium on the question, "Can our Churches be Made More Useful?" to which the Rev. Dr. Edward Everett Hale, the Rev. Dr. Washington Gladden and the Rev. Minot J. Savage contribute. The murder of Major Clayton—one of the uppermost political topics of the hour—is ably considered, from the Republican and the Democratic point of view, by the Hon. Logan H. Roots and Senator James K. Jones, both of Arkansas. A powerful plea for Delia Bacon is entered by Ignatius Donnelly, in a review of Theodore Bacon's life of his aunt. "Legislative Injustice to Railways" is discussed by Henry Clews; "Common-Sense and Copyrights," by the Hon. George S. Boutwell; and the question, "Does American Farming Pay?" is conclusively answered by recognized authority, the Hon. George B. Loring, ex-Commissioner of Agriculture. "Humanity's Gain from Unbelief" is set forth by Charles Bradlaugh, M. P. General Lloyd S. Bryce, Member of the Fiftieth Congress, points out some errors of statement and conclusion in Professor James Bryce's widely-read "American Commonwealth." Dion Boucicault describes a recent incident at the Goethe Society's meeting, and comments on the disastrous effect of newspaper criticism on the drama. In a readable short article, Grant Allen treats of "The Adaptiveness of Nature." In the department of "Notes and Comments," "The Claim of Realism" is considered by Albion W. Tourgee; there is also a timely contribution on "Naming the New States." Several pages are devoted to reviews of recent books.

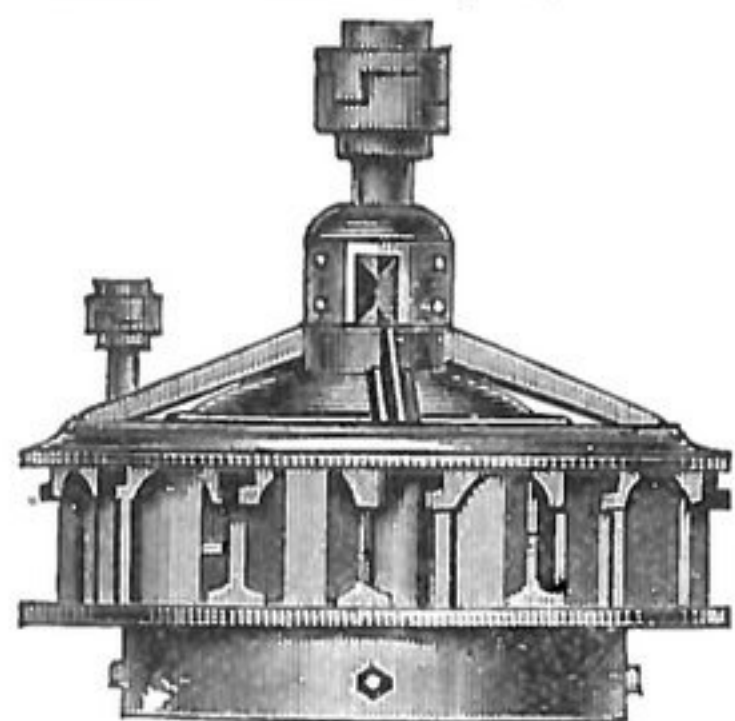
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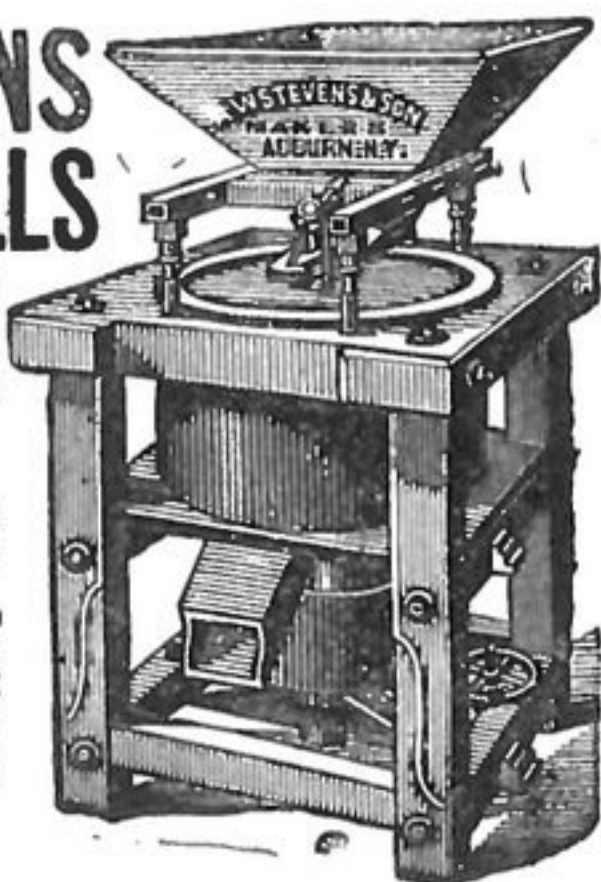
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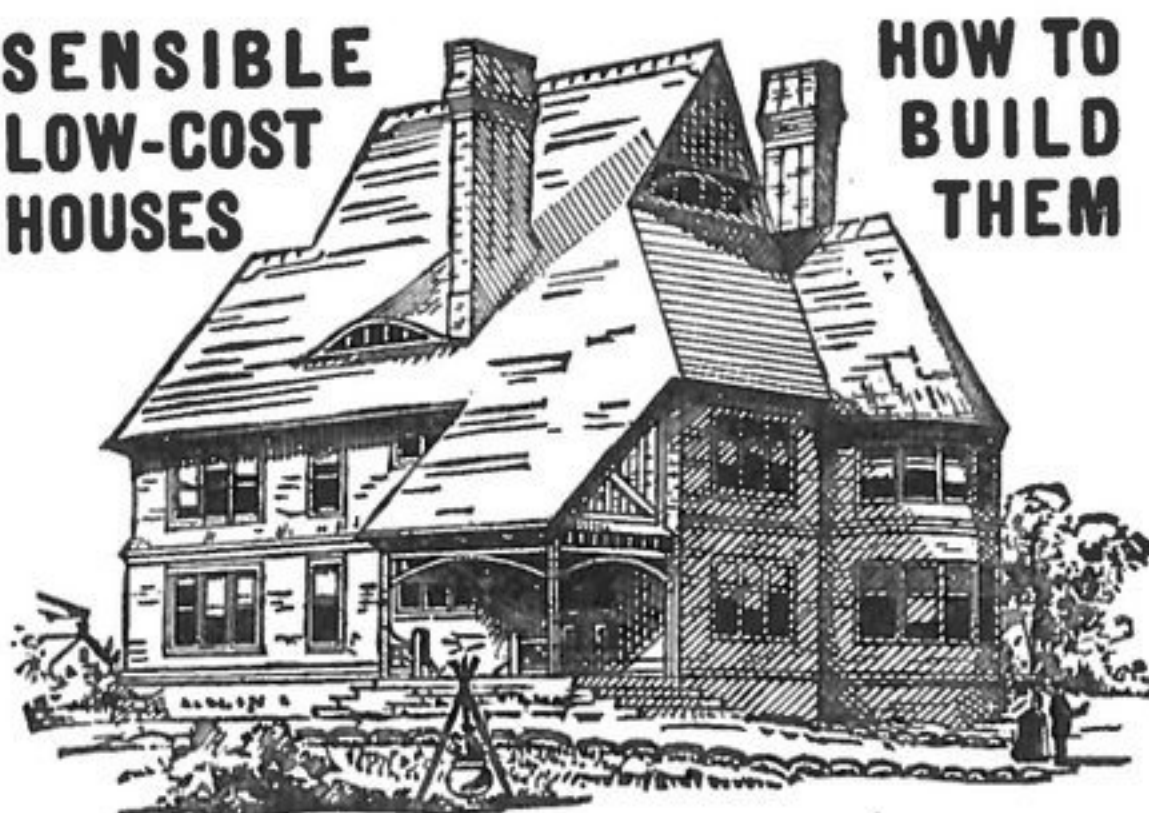
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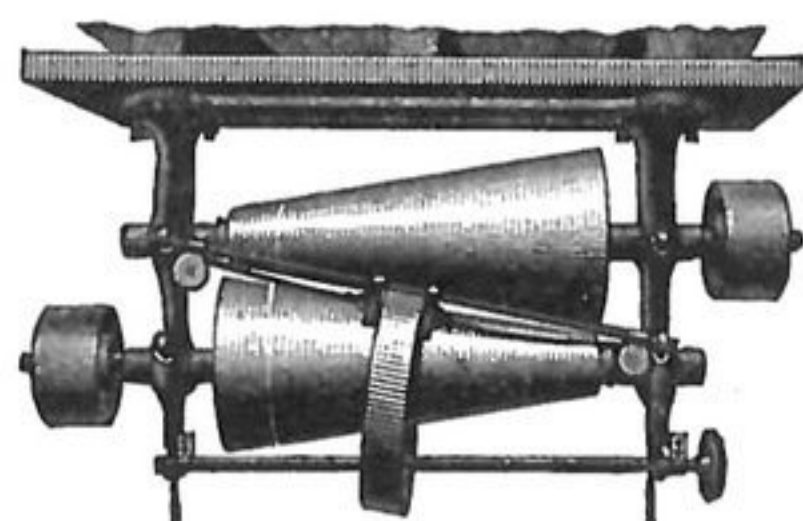
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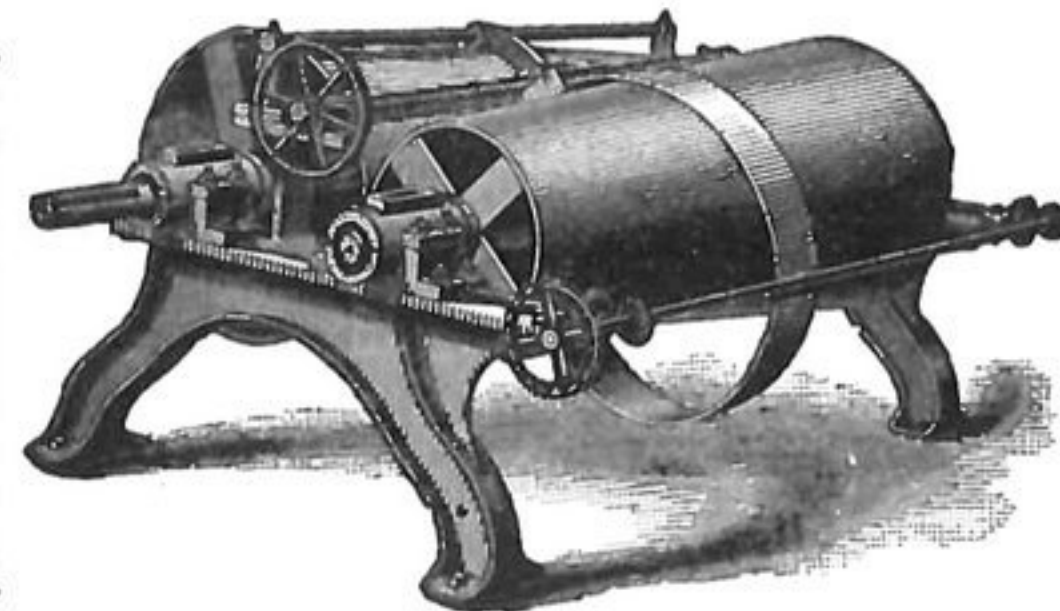
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EUROPEAN ECHOES.

RUSSIAN ports are again blockaded by ice, interrupting the grain shipments that followed the thaw in early February.

SUDDEN changes from severe frost to thaw and rain and back have caused complaints of damage to winter crops in France.

SEVERE storms and intense cold in February were experienced in all European countries, and much damage to winter wheat is feared.

MILLERS in France who formerly purchased rye liberally now abstain from using this grain in presence of the competition with imported Indian corn which enters duty free.

NORTHERN and central Russian wheat stocks are exhausted. The exports for the rest of the crop must come from southern Russia, where the reserves are said to be still large.

RECENT reports from Odessa state that the city granaries are filled to overflowing, and empty dwelling-houses are pressed into service as grain-stores at fancy rents. Exclusive of grain afloat in the harbor, there were nearly 24,000,000 bushels in the city warehouses, of which 22,000,000 bushels were wheat.

RUSSIA'S export returns, lately published, show an aggregate grain shipment of 256,333,000 bushels for 1888, against 185,000,000 bushels in 1887, and 125,000,000 bushels in 1886. The wheat exports were 98,838,300 bushels; those of rye 53,471,600; barley 35,076,600; oats 46,648,300; corn 8,510,000. Only the corn exports were below the average, which is about 12,500,000 bushels.

R. HUNTER Craig & Co.'s Glasgow Foreign Flour Report of Feb. 15 reports American patents selling at the following prices per barrel: Canadian \$5.56; Michigan and Ohio \$5.80; Milwaukee \$5.98; Minneapolis \$6.47; St. Louis \$5.88. Demand for Michigan, Ohio and St. Louis was good; Minneapolis was moderate; for the others slow. French was selling at \$5.39; demand slow. German first and second quality were selling at \$5.20 and \$4.53. Hungarian flours Nos. 0, 1, 2, 3, 4, 5 and 6 sold at \$5.98, \$5.80, \$5.62, \$5.47, \$5.20, \$4.96 and \$4.80 respectively.

LONDON Corn Exchange quotations on February 18 included the following: New white English, Kent or Essex wheat, per 480 pounds, 30 to 36s.; red ditto 28 to 36s.; old white English 40 to 48s.; old red English 38 to 40s.; Rivetts 24 to 29s.; Duluth wheat 44 to 46s.; red winter wheat 36 to 40s.; California and Oregon 39 to 40s.; Chilian 38 to 39s.; Australian 40 to 42s.; New Zealand 38 to 42s.; Bombay red 28 to 34s.; Bombay white 35 to 39s.; Calcutta white 34 to 37s.; Calcutta red 32 to 34s.; Dantzic 36 to 40s.; Petersburg 33 to 37s.; Saxonska 36 to 40s.; Kubanka 34 to 36s. On the same date in the same market London top-price brands of flour sold at 36s. per 280 pounds; town whites 29 to 31s.; American patent spring 37 to 38s.; first bakers' 27s. 6d. to 28s. 6d.; 2d bakers' 25 to 27s.; low-grade 14 to 18s.; straight winter 25 to 26s.; patent winter 31 to 33s.; French for March 36s.; Hungarian 32 to 38s.; Australian superfine 27 to 28s.

SAYS the London "Miller" of February 18: February has given us a white picture during the past week, a general snowfall covering these islands and much of Europe. Sharp frost before the snow prepared the land for its burden of three to six inches of snow blanket, and arable land will be commonly better for the wintry visitation. As a rule reports of crop prospects for corn and of all stock and lambs remain very favorable. The markets certainly responded to the presence of winter, and at most exchanges demand and value have moderately improved. But then seven days of winter

can not exercise much influence, and on last Friday a cold thaw became a warm one and soft winds and fine rain carried rapidly away the signs of frost and snow. As soon, and with equal rapidity, the cargo trade was shorn of its new strength, while off market stands the sales of wheat and flour in country places were mostly kept at the advanced prices asked early in the week. The spell of wintry weather had set people thinking, and their reflections apparently were that quotations are extraordinarily low and would be sounder if upon a more reasonable level. It was noticeable also that the Continental buyers were picking off suitable white-wheat cargoes from our coasts and Russian sellers of good quality wheat were finding better terms from other buyers than those of the United Kingdom. As to English wheat at 31s., a sort of test-survey was made last week of the samples offered in Mark Lane at about this price; but it was found that such lots were not good milling wheat, and that to obtain 504 pounds of really sound and useful grain, 34s. was perhaps the lowest offer that would be accepted. It has also been suggested that farmers' deliveries are at present larger than they would be compared with other seasons, from the strictness of returns of sales being enforced since the recent Parliamentary inquiry. But whatever may be the quantity sold, a large proportion must be too inferior for use by itself and require a large admixture of foreign sorts to produce ordinary bread flour. In important wheat-growing districts many of the samples sold locally do not make more than 26s. per quarter, and it is such as these that pull down the average price to its present degraded position:

Jan. 26.	Feb. 2.	Feb. 9.	Feb. 16.
30s. 1d.	29s. 9d.	29s. 7d.	29s. 6d.

These terms are per 480 pounds, and so are those for red winter off coast, for which the great competitor, America, who was to swamp the world with wheat, wants 35s. 6d., that is, 5s. per quarter above what the English farmer is now accepting, to the astonishment of importers. As for California, that country demands and gets 38s. 8d. for 500 pounds of wheat; the latter being superior in quality to the English at 32s. for equal weight. Probably, as a rule, at this time millers are having to pay more for the wheat they use than is supposed from the low quotations given in the markets; and on this account flour has lately firmly maintained its position when wheat was trembling downwards. The advancing season should now take up farmers' attention with spring seeding, so that until May brings fresh opportunities market deliveries should diminish.

WIRE-CLOTH MEASUREMENTS.

The classification of wire-cloth differs in different countries, but as a rule the small numbers denote the larger, and the higher numbers the smaller sizes of the meshes. In Germany the number on the cloth gives the number of threads found to the space of one Prussian inch; in Austria to one Viennese inch; in France and Switzerland to one Parisian inch; in England and the United States to one English inch. Consequently the numbers of the wire-cloth bear the same proportion to each other as that of the length of the various inches and are best illustrated by their reduction to the metric system:

One inch	English measure equals	25.40 mm.
"	Prussian "	26.15 "
"	Viennese "	26.34 "
"	Parisian "	27.07 "

The difference between the Prussian and Viennese measure is so small that they may be accepted as the same for all practical purposes, and this generally forms the type for the classification of most of the wire-cloth in use. Whether round wire is used or square wire, the numbers are the same. The shape is only of importance in the final application; for assorting and sifting the grain the round wire is preferred, but for cleaning purposes, where friction is required, square wires have been found to do better service; their time of service, however, is short, as the sides of the wire, subjected to the constant friction, soon lose their sharp edge and become round.



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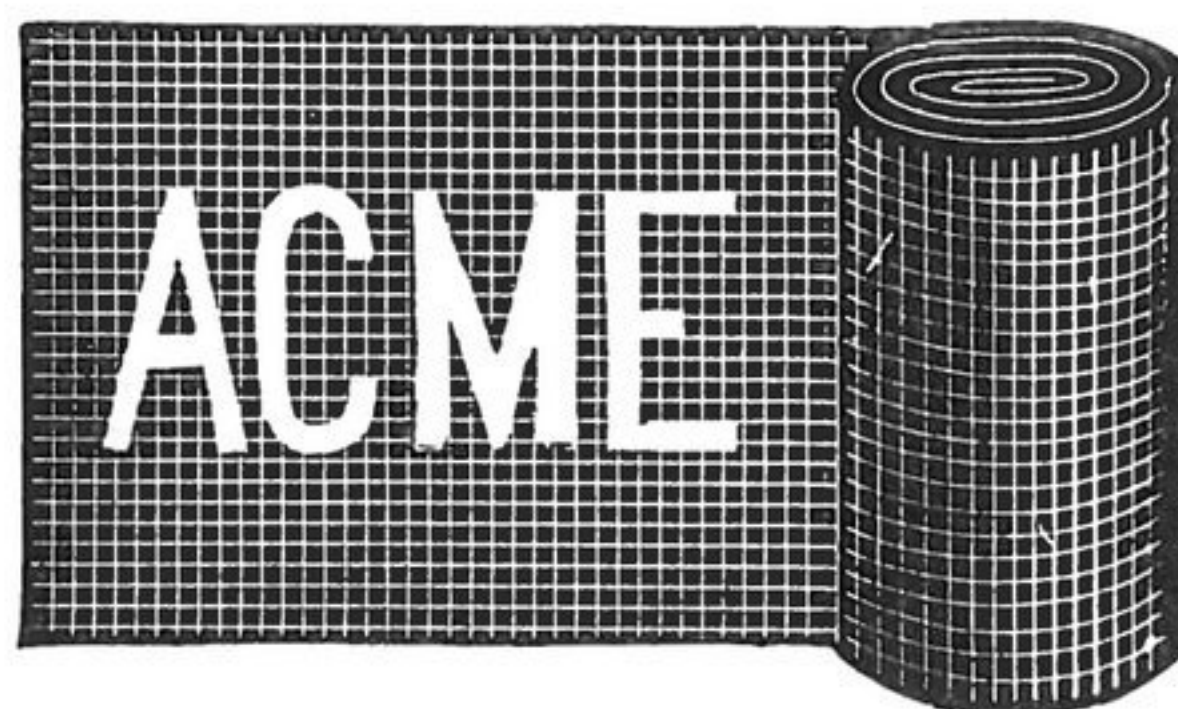
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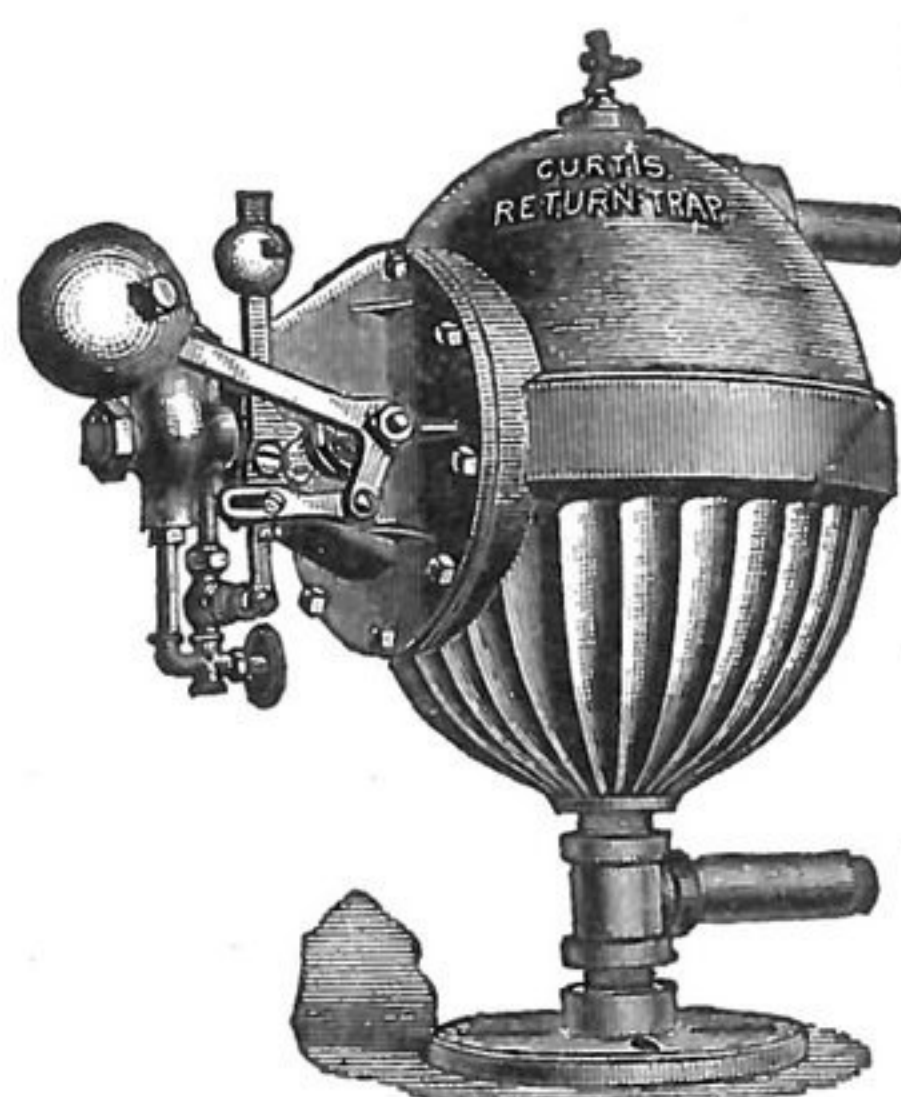
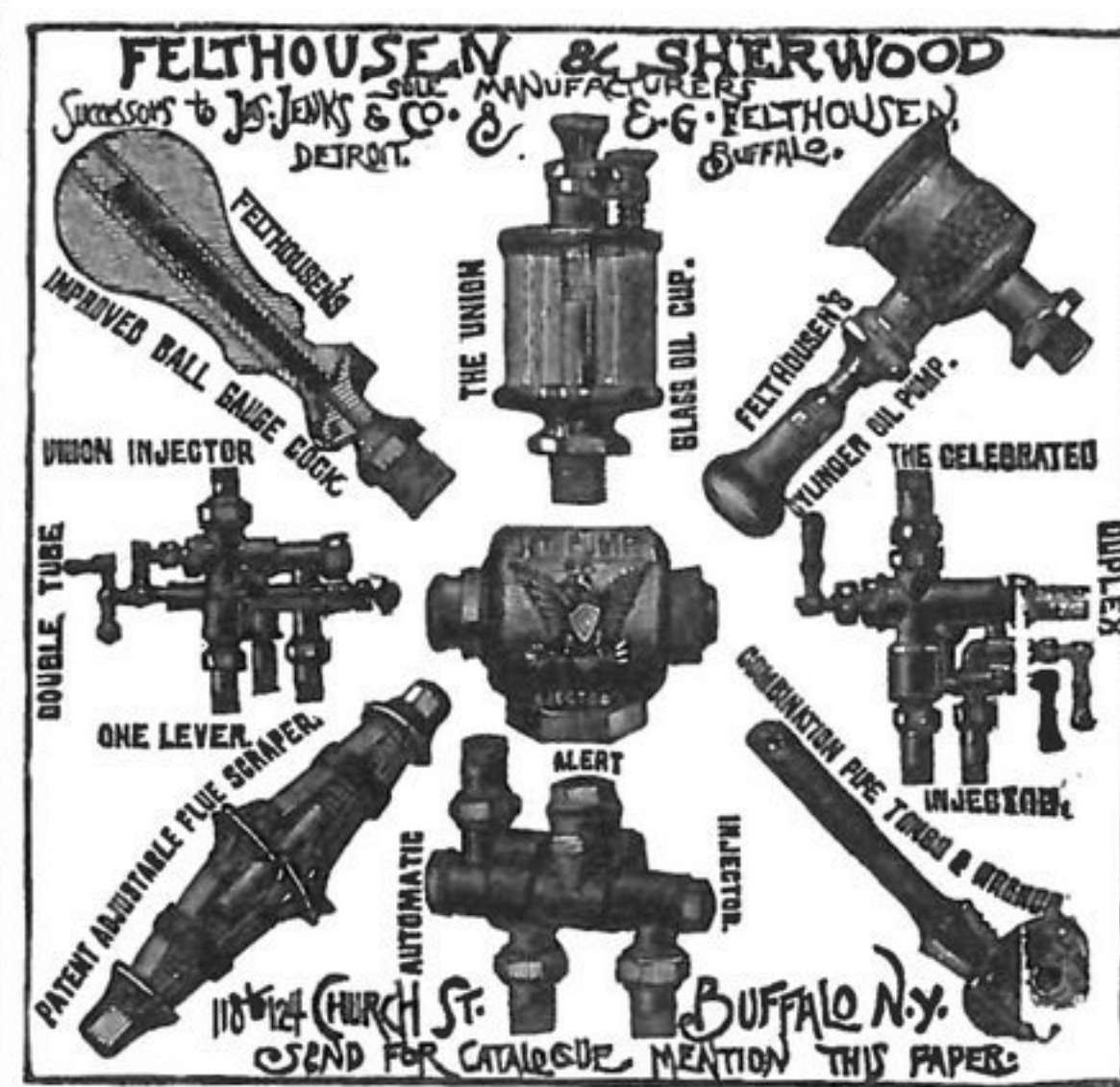
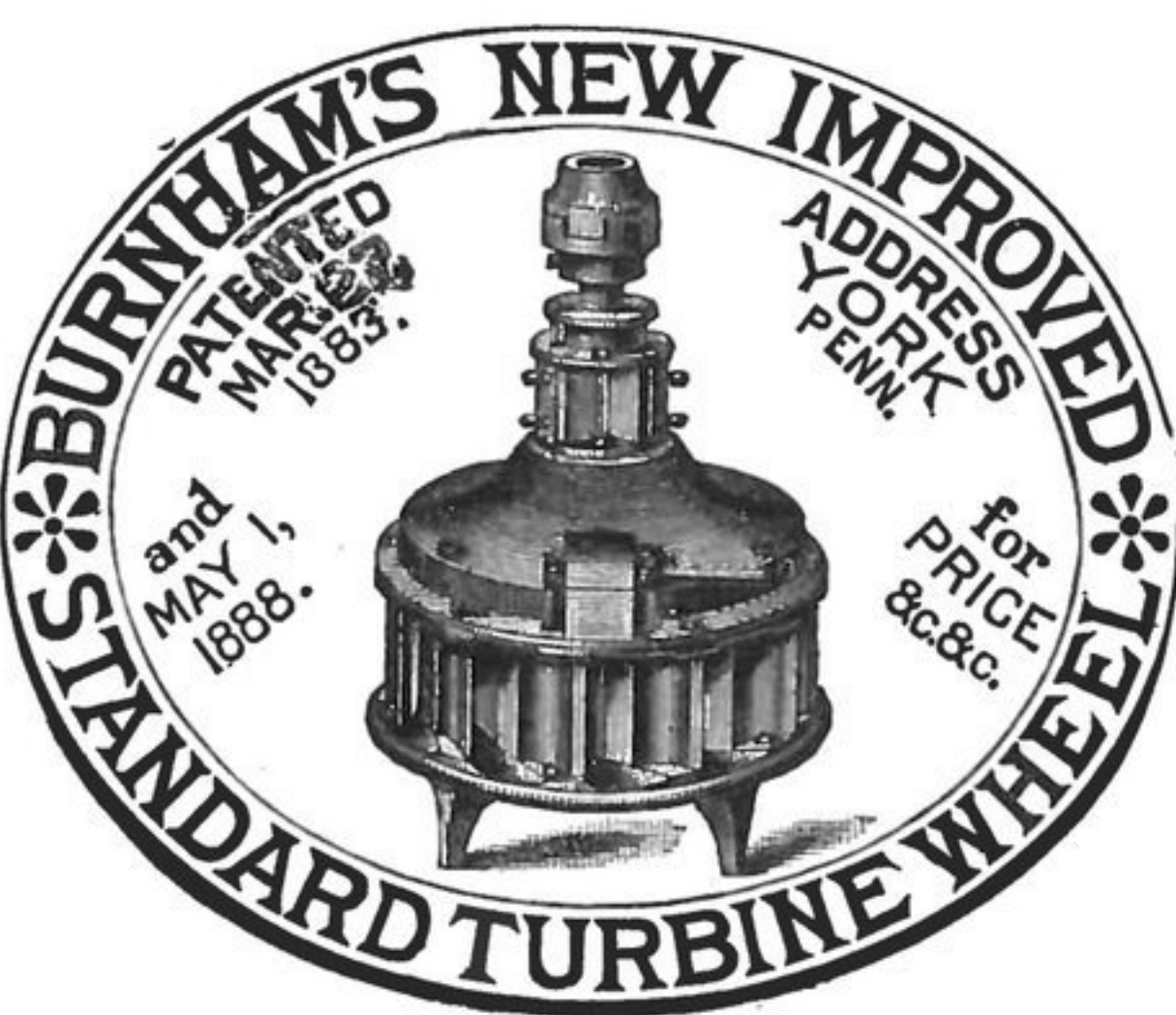
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OFFICE OF THE MILLING WORLD,
BUFFALO, N. Y., March 9, 1889.

On Friday of last week the markets were dull and irregular. March wheat closed in New York at 97½c. Options 800,000 bushels. March corn closed at 44½c. and oats at 30½c. Trade in both was small. Wheat flour was in slow demand for both home and foreign account. The chief demand was for the better grades. The prices were unchanged. The minor lines were quiet all around.

On Saturday heavy liquidation in May wheat in Chicago unsettled the markets. March wheat closed down in New York; all the months sank below \$1. Options 4,100,000 bushels. In Chicago March wheat closed at \$1.00¼ and May at \$1.03½. March corn closed in New York at 43½c. and oats at 30¼c. Wheat flour was dull and unchanged, with home traders holding off and exporters taking freely of spring No. 1 and patents. The minor lines were featureless.

On Monday the markets were unsettled and irregular, higher and nervous, after the break of Saturday. It was taken for granted, possibly without justification, that the bulls of Chicago on Saturday sold on one another and left Fairbank in the lurch with small show of running the May deal attributed to him. In New York March wheat closed at 95¼c. and May at 98½c. Exporters took some wheat for Europe. In Chicago March wheat closed at \$1.01½ and May at \$1.04½. March corn closed down at 43½c. Wheat flour was dull and firm at old prices, and exporters held off to see the outcome of the Chicago raid on wheat. Other lines were quiet.

On Tuesday the markets were flat. March wheat closed at 95c. in New York. Options 5,760,000 bushels. In Chicago March closed at 99c. and May at \$1.01¼. March corn in New York closed at 44c. and oats at 30½c. Wheat flour was dull and in buyers' favor. Winters were most firmly held and springs least firmly. The minor lines were without features.

The visible supply in the United States and Canada was:

	1889.	1888.	1887.
March 2.			
March 3.			
March 5.			
Wheat.....	30,000,059	37,515,931	55,781,463
Corn.....	15,820,084	9,141,652	15,734,300
Oats.....	7,918,963	4,750,851	4,583,585
Rye.....	1,669,596	382,397	413,358
Barley.....	1,832,562	2,409,351	1,853,511

On Wednesday the bears continued to raid the markets. March wheat in New York closed at 94½c. Options 4,600,000 bushels. March corn closed at 44½c. and oats at 31c. Export trade was almost nothing. Wheat flour was dull but steady on the whole list in sympathy with wheat. The weak spots in the market disappeared, and the export demand for low-grade winters and springs was better. Transactions were in fair volume. The minor lines were featureless.

On Thursday there was a decided upward movement in the breadstuff markets. Export demand improved unexpectedly, causing the strength. In New York March wheat opened at 95¼c. and closed at 96c., with May at 98¾c. and June at 98¾c. Options 7,650,000 bushels. In Chicago March wheat closed at \$1.00¼, April at \$1.02¼ and May at \$1.03½. Export trade in wheat was large, including 23 loads, for Lisbon, Bordeaux and Marseilles. The boom naturally cheered the bulls and weakened the bears. March corn boomed up to 44½c. and oat up to 31½c. at closing. Buckwheat grain was nominally 50@52c., without demand or sales. Rye grain was weak and unsalable and quoted at 53@54c. on track for State and Jersey, 54@56c. in elevator for No. 2, and 56@-

57c. in elevator and 58c. afloat for No. 1. Malt was slow and steady at \$1.00@1.10 for Canada, whole range, 90c. for 2-rowed and 92@95c. for 6-rowed. Mill-feed was quiet at the following quotations: 40, 60 and 80-lb, 70@75c; 100-lb, 80@90c; sharps, 90@95c; rye, 80@85c; screenings, 50@80c; oil meal, \$1.45@1.50; cotton meal \$1.25@1.28; barley meal, 80c nominally for the latter.

Wheat flour was held more firmly for winters and more steadily for springs, in sympathy with wheat grain. Sales were not large, as prices were 10@15c. overs buyers' views. Exporters were not active. The quotations were as follows:

SPRING FLOUR.

	Sacks.	Barrels.
No grade.....	\$1.90@2.15	\$....@....
Fine.....	2.15@2.40	2.50@2.80
Superfine.....	2.65@3.10	3.20@3.35
Extra No. 2.....	3.30@3.45	3.45@3.65
Extra No. 1.....	3.70@4.40	3.80@4.40
Clear.....	3.90@4.80	4.55@5.05
Straight.....	5.30@5.80	5.80@6.05
Patent.....	5.90@6.55	6.40@6.95

WINTER FLOUR.

	Sacks.	Barrels.
No grade.....	\$2.90@2.25	\$....@....
Fine.....	2.60@2.85	2.80@3.00
Superfine.....	3.25@3.40	3.35@3.50
Extra No. 2.....	3.40@3.55	3.70@3.90
Extra No. 1.....	3.80@4.90	5.15@5.65
Clear.....	4.35@4.75	4.65@5.05
Straight.....	5.15@5.35	5.15@5.65
Patent.....	5.40@5.75	5.55@6.40

CITY MILLS.

W. I. grades.....	\$5.35@5.50
Low grades.....	2.55@2.95
Patents.....	6.15@6.85

Rye flour was easier at \$2.90 for choice and \$3.00@3.10 for fancy. Buckwheat flour was dull at \$1.50@1.75. Corn products were generally stronger at the following quotations: Coarse at 80@85.; fine yellow, 95c@1.05; fine white, \$1.05@1.10; Brandywine and Sagamore, \$2.90; Southern and Western, \$2.75@2.85; coarse meal, 83@85c; fine yellow, 98c@1.00; fine white, \$1.03@1.05; Southern, 80c@1.20 for coarse and fine in bags; grits, \$2.50@2.60.

The Jackson, Tenn., Milling & Mfg. Co., increase their flour-mill capacity from 80 to 150 bbls a day and build a 100,000-bushel elevator.

BUFFALO MARKETS.

FLOUR—City ground—Patent spring, \$7.25@7.50; straight Duluth spring, \$6.50@6.75; bakers' spring, best, \$6.00@6.25; do rye mixture \$5.25@5.50; patent winter \$7.00@7.25; straight winter \$5.75@6.00; clear winter \$5.50@5.77; cracker \$5.50@5.75; graham \$5.50@5.75; low grade \$3.00@4.25; rye 3.50@3.75 per bbl; buckwheat \$2.50 per cwt. **OATMEAL**—Akron \$6.00; Western \$5.75 per bbl; rolled oats in cases, 72 lbs, \$3.25. **CORNMEAL**—Coarse, 80c.; fine 85c.; granulated \$1.50 per cwt. **WHEAT**—Chicago May advanced 1¼c, opening at \$1.02¼; highest \$1.04, lowest at \$1.04¼, and the closing \$1.08½. No. 1 hard was at a limit at 30c; No. 1 new at 22½c; No. 2 Northern at 5, and No. 2 Chicago at 4 over Chicago May. but at the advance coupled with the fluctuations, no sales were reported. Old No. 1 hard closed at \$1.23½; new No. 1 at \$1.26. No. 1 Northern at \$1.24½, and No. 2 Northern at \$1.08½. Winter wheat was also quiet; the basis was 6c over Detroit cash; 2 carloads of No. 1 white were sold at \$1.04@1.05, and 1 do at \$1.08½; No. 2 red closed at \$1.04¼, No. 3 do at 89½c, and No. 1 white at \$1.05. **CORN**—Demand fair and market firm at the close; sales included 13 carloads of No. 3 yellow at 38c in store, 4 do No. 3 at 27½c, 2 do do at 38c, and 2 do No. 4 yellow at 37c, those at the latter price on track. **OATS**—Demand moderate and prices weak; sales 2 carloads No. 2 white at 30½@31c, 4 do do at 30½c; 1 do No. 2 at 39½, and 1 do No. 3 at 27½c. **BARLEY**—Steady to firm with no moderate demand; a sale of 5,000 bu No. 1 Canadian was made at 75c. No. 1 Canadian was reported strong at 75c; No. 2 do at 70@72c; No. 3 extra 65@68, and No. 3 60@62c. **RYE**—No. 2 Western dull at 53@54c on track. **RAILROAD FREIGHTS**.—To New York, Baltimore and Philadelphia rate points on grain flour, and feed, 13c. per 100 lbs; to Albany and West Troy, 10½c; and to Boston, 15c.



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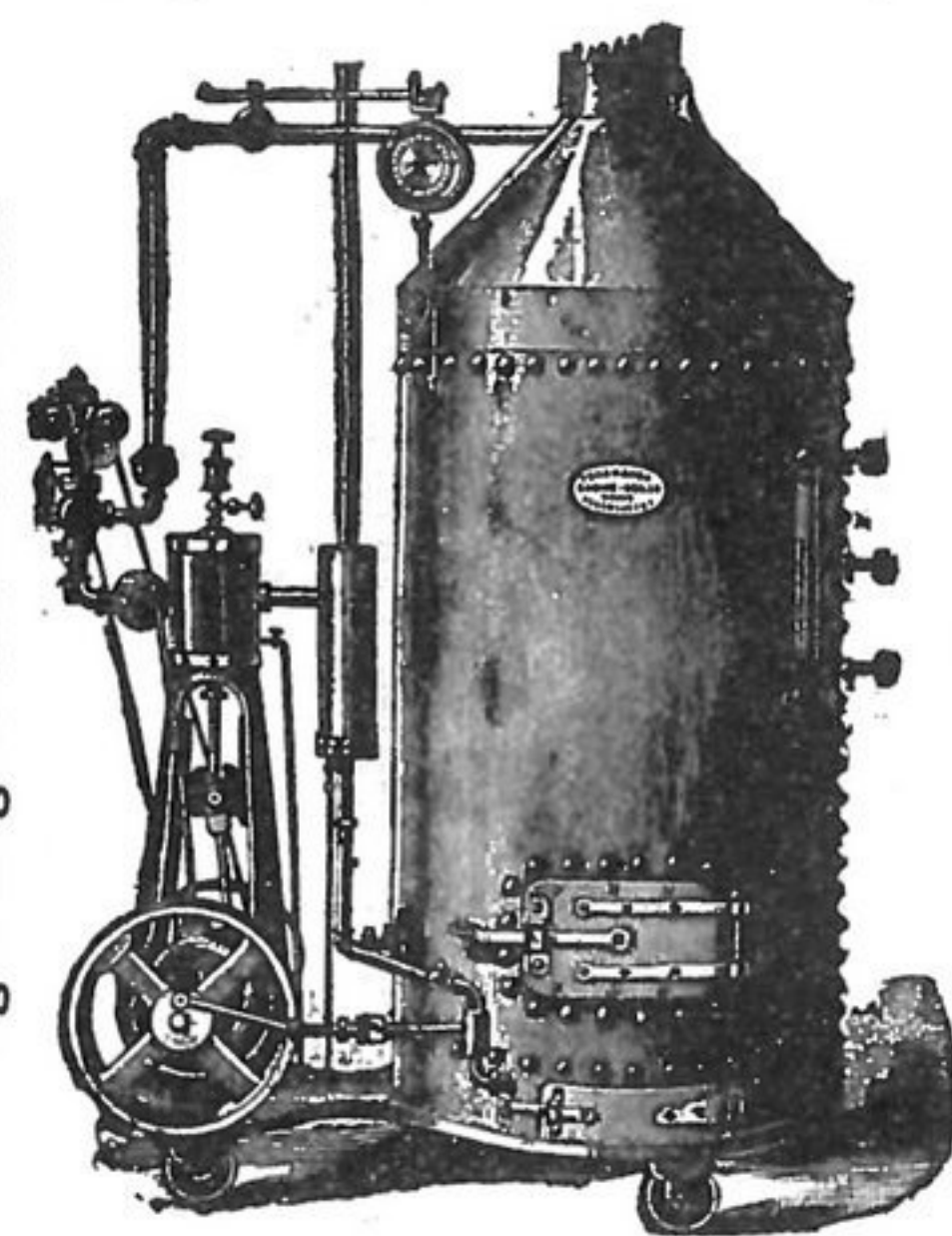
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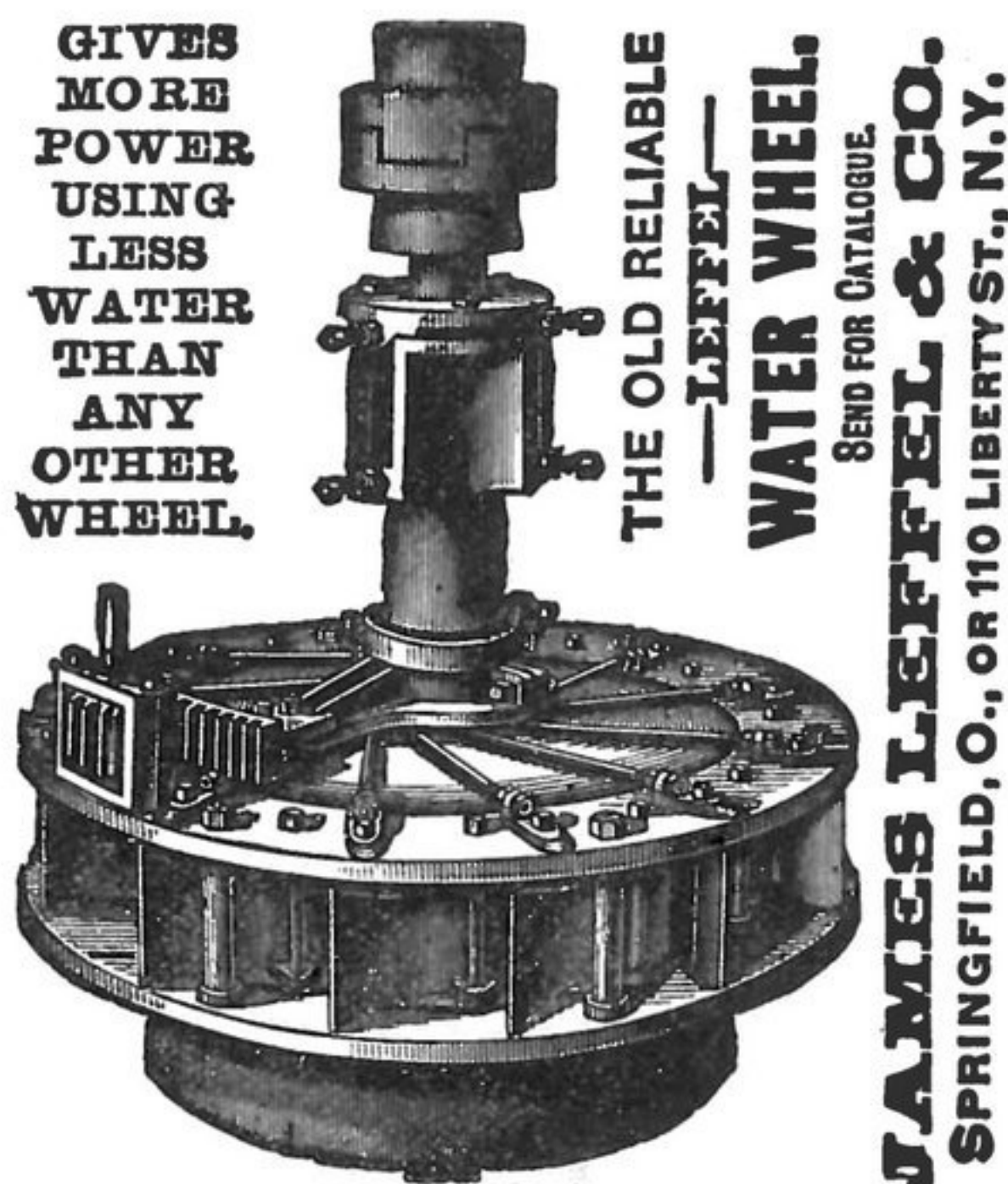
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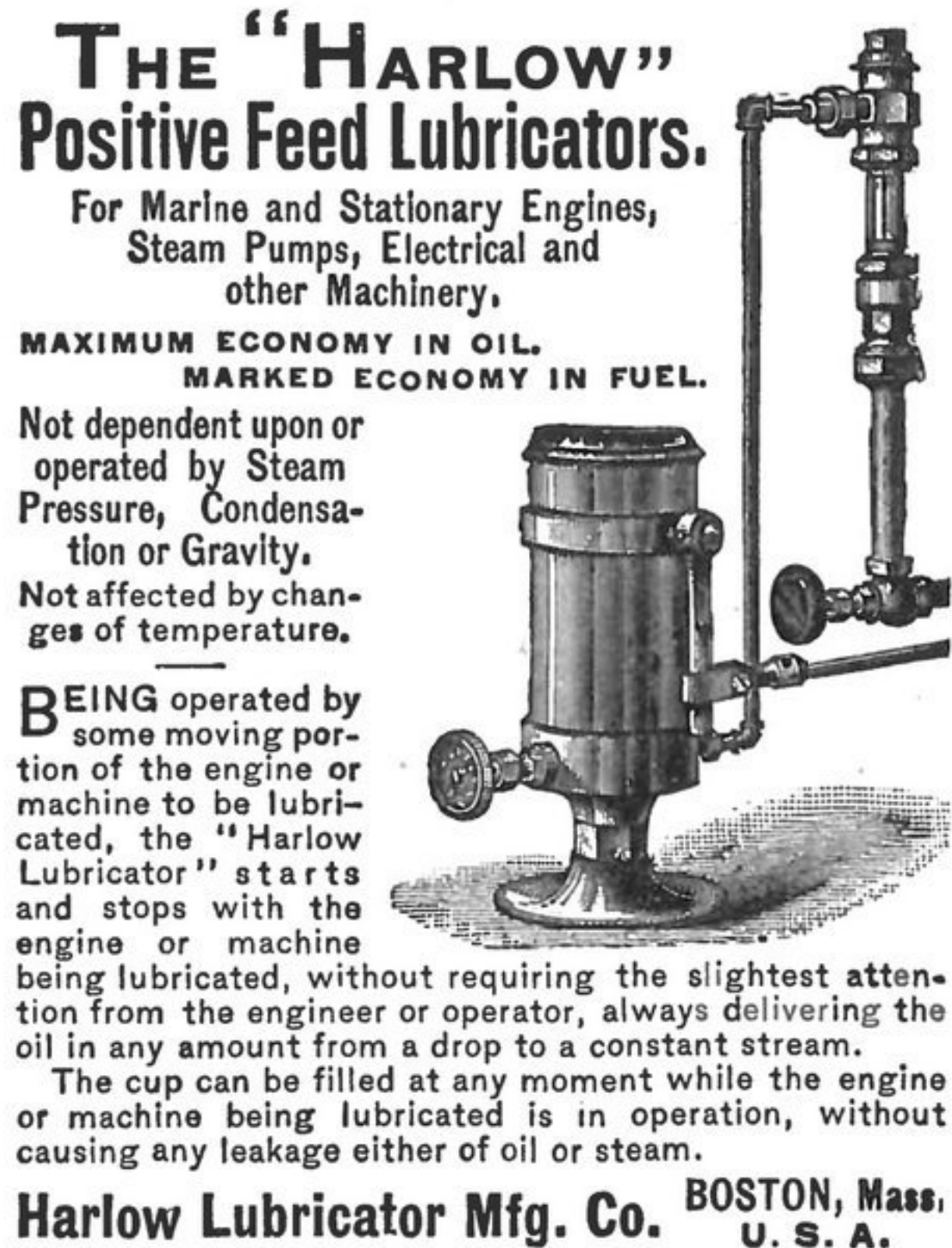
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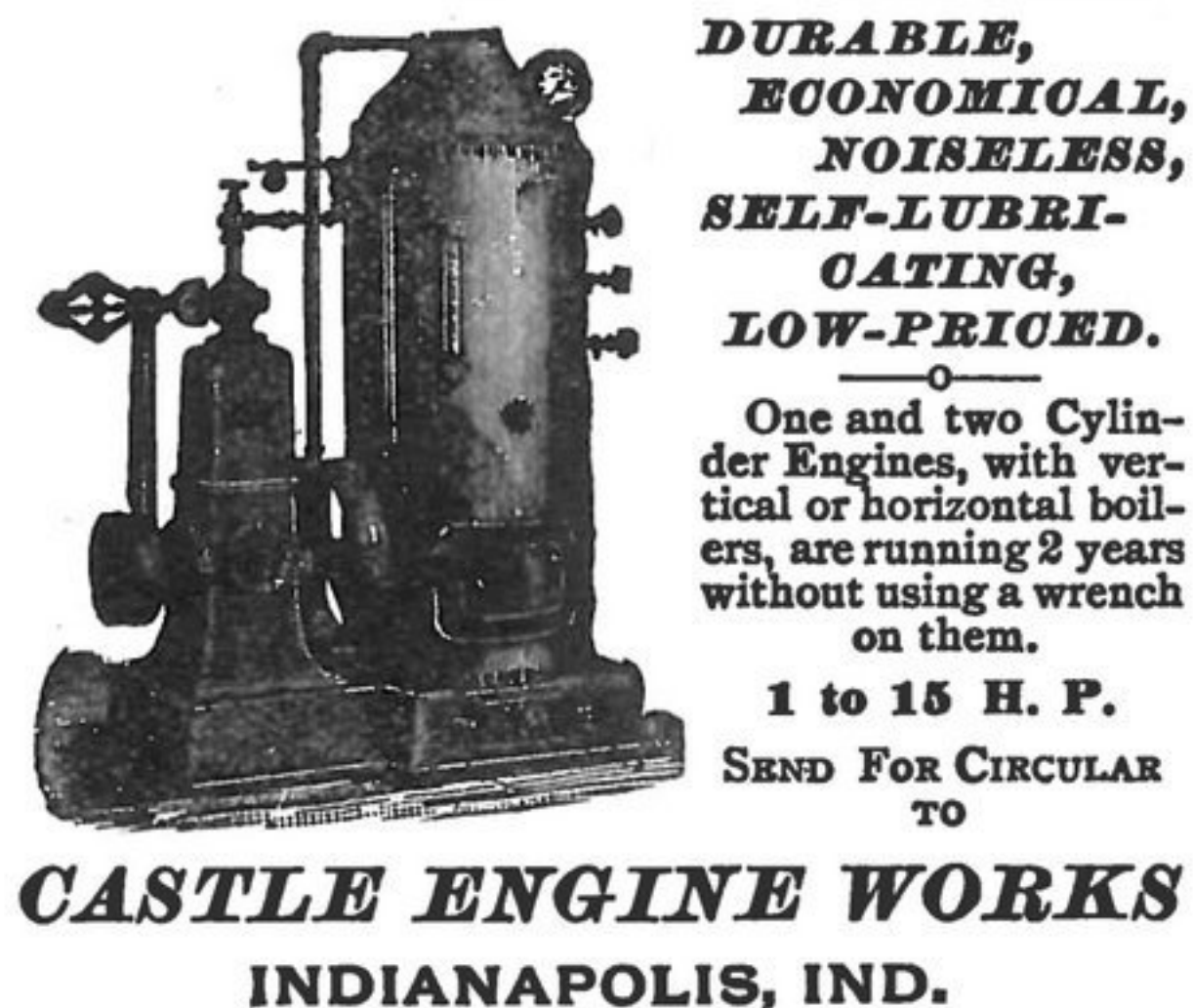
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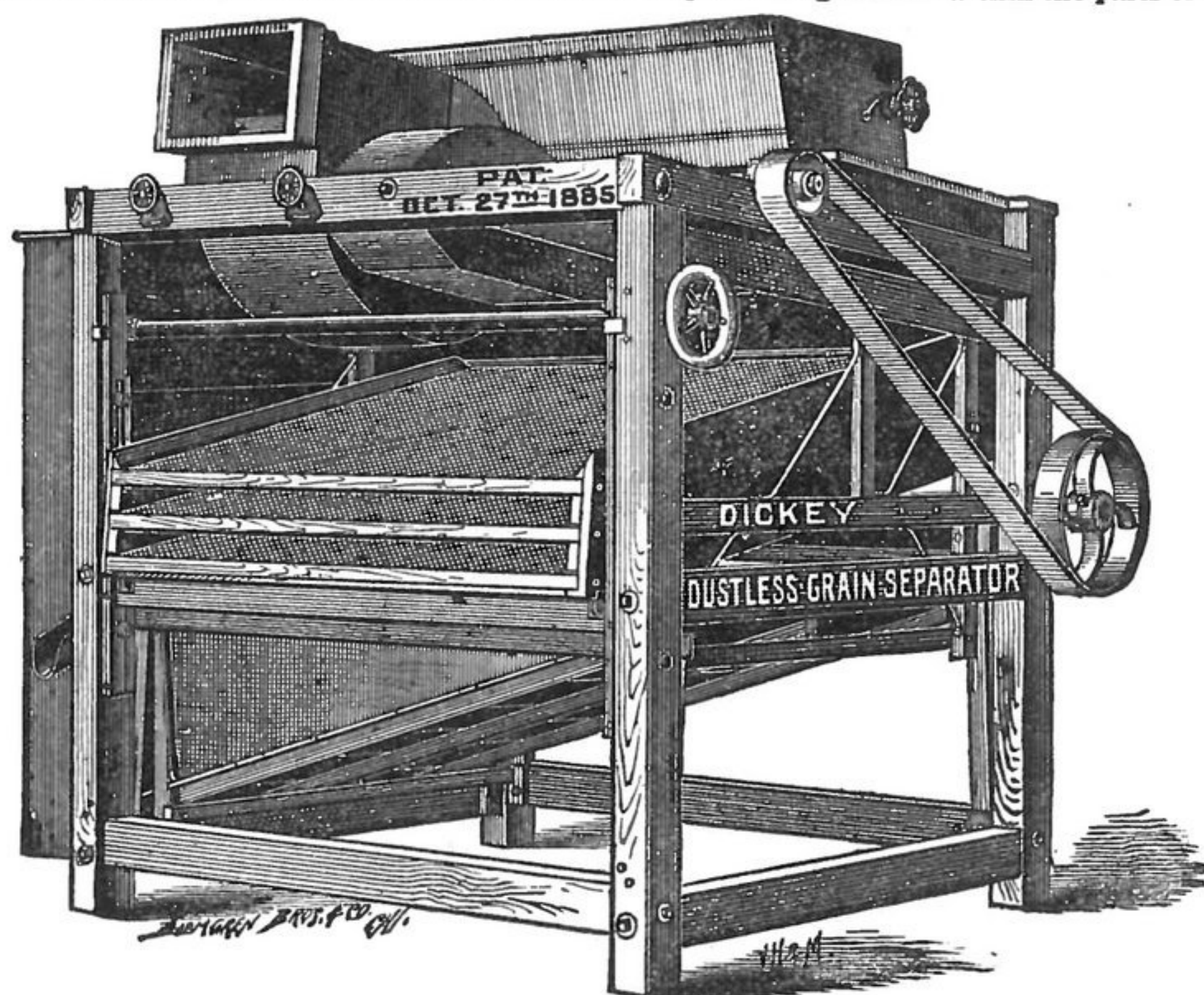
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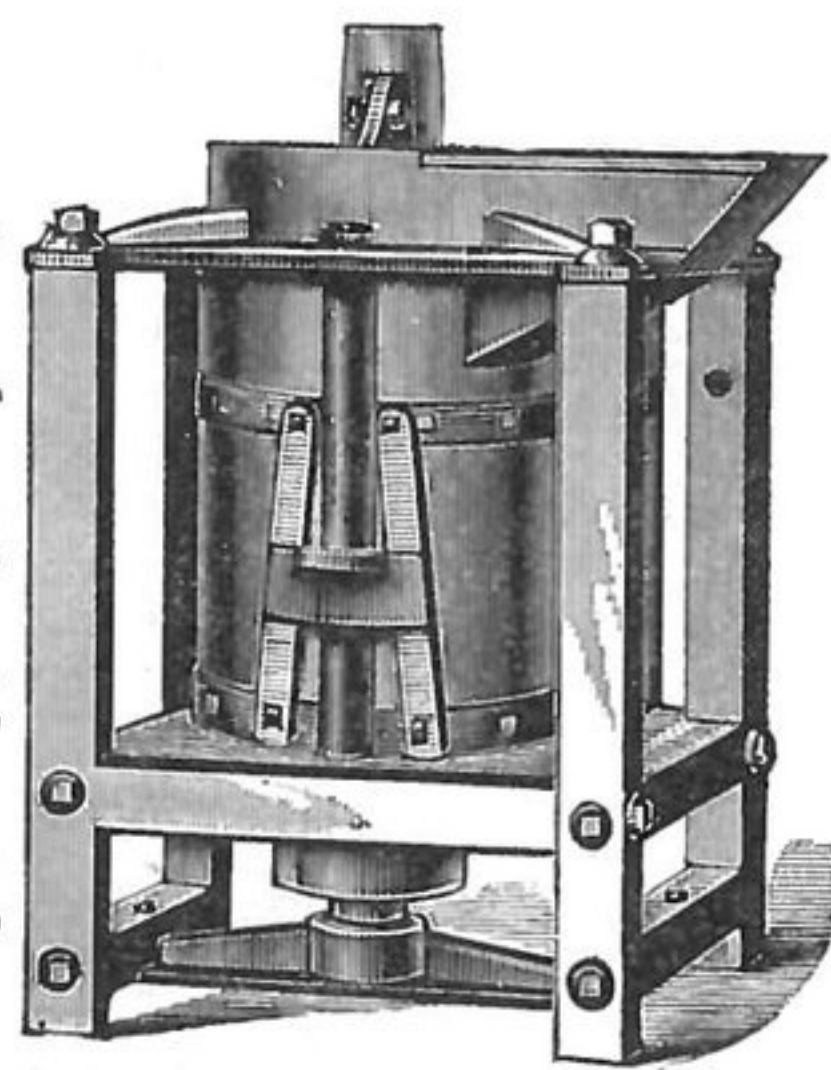
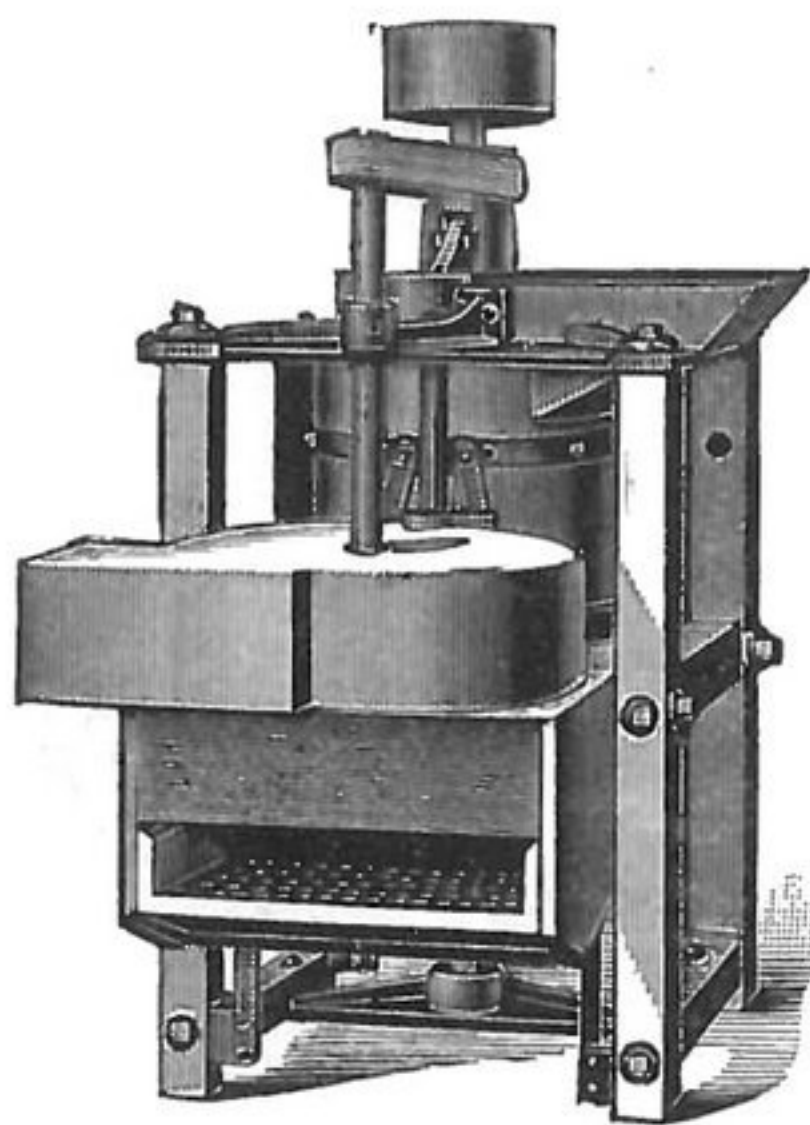
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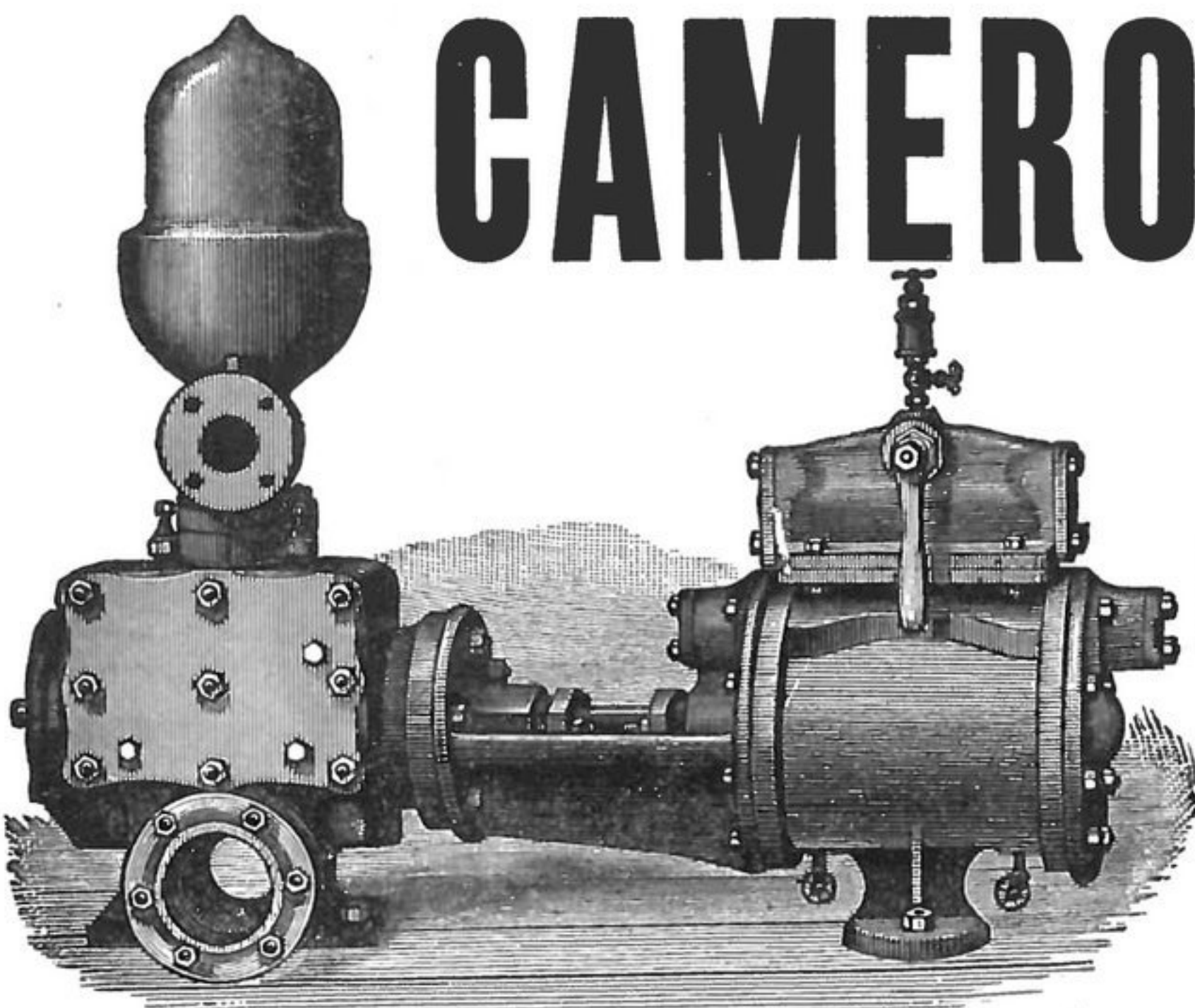
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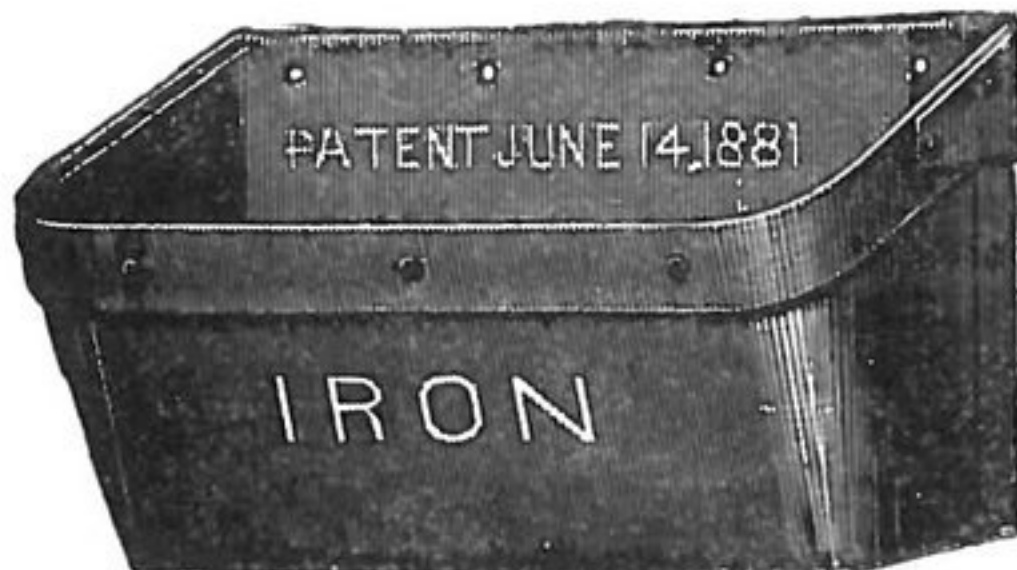
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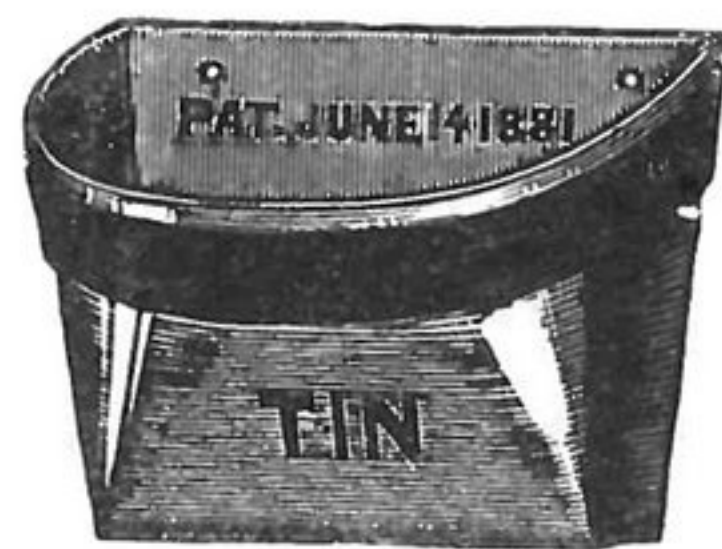
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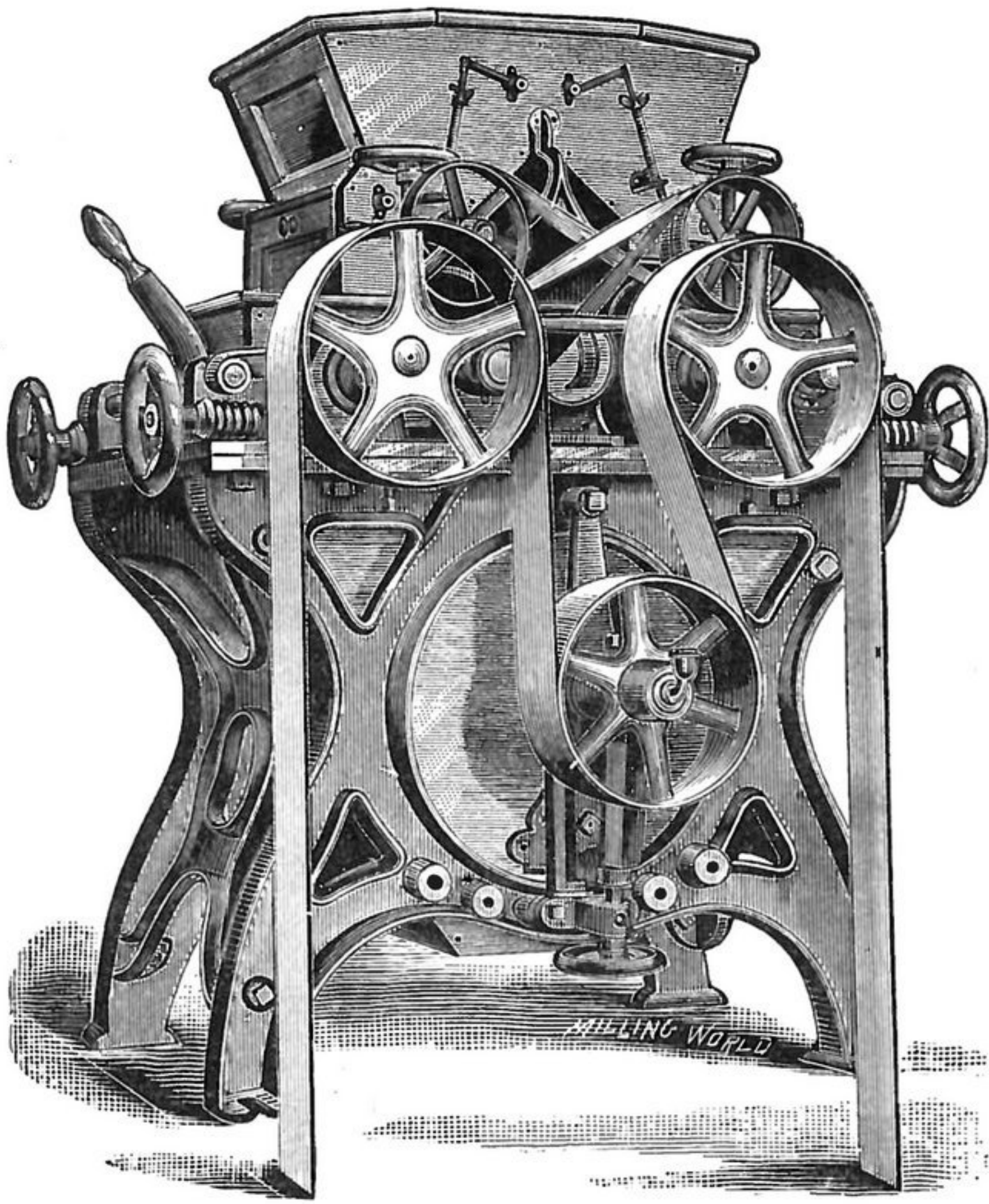
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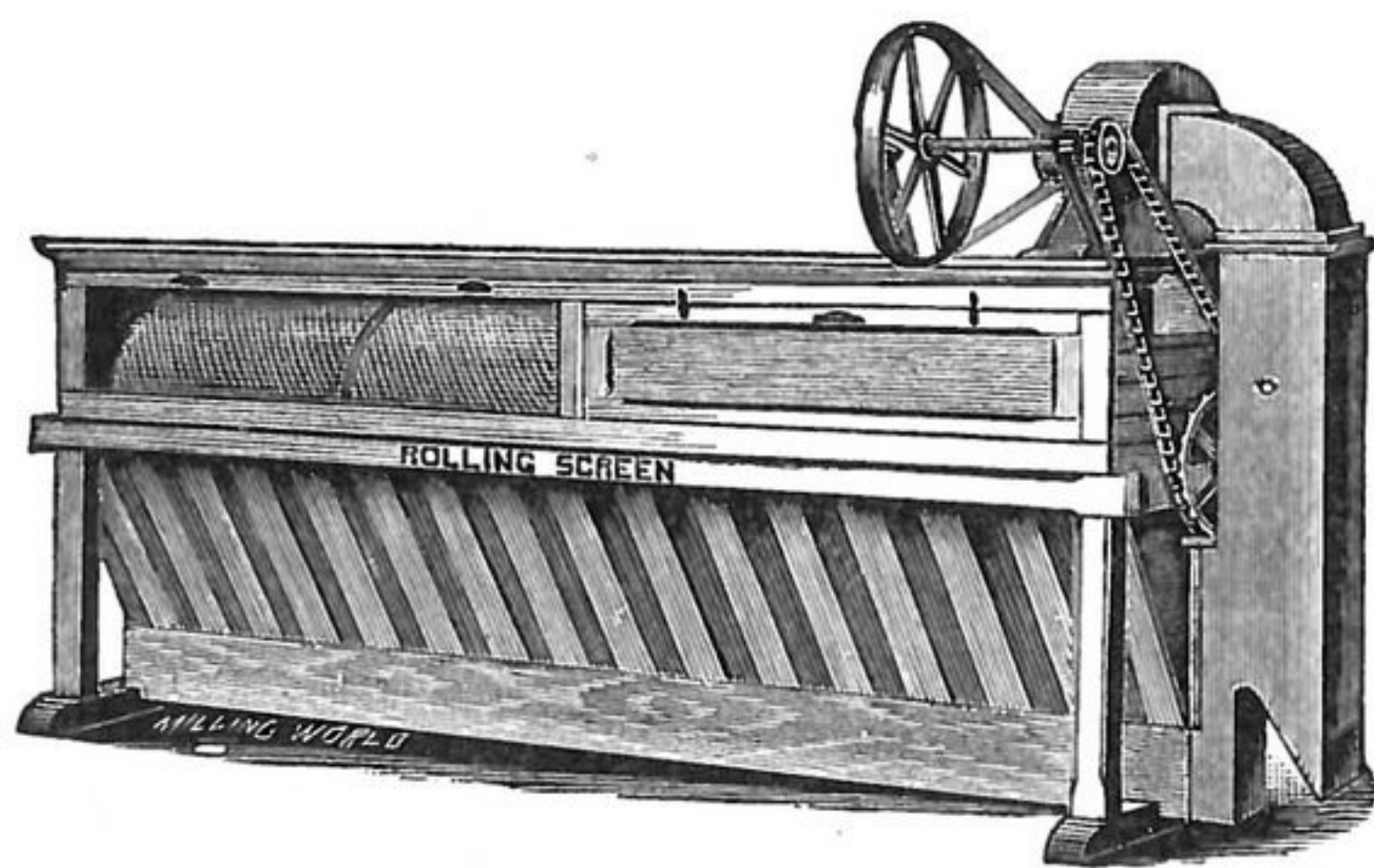
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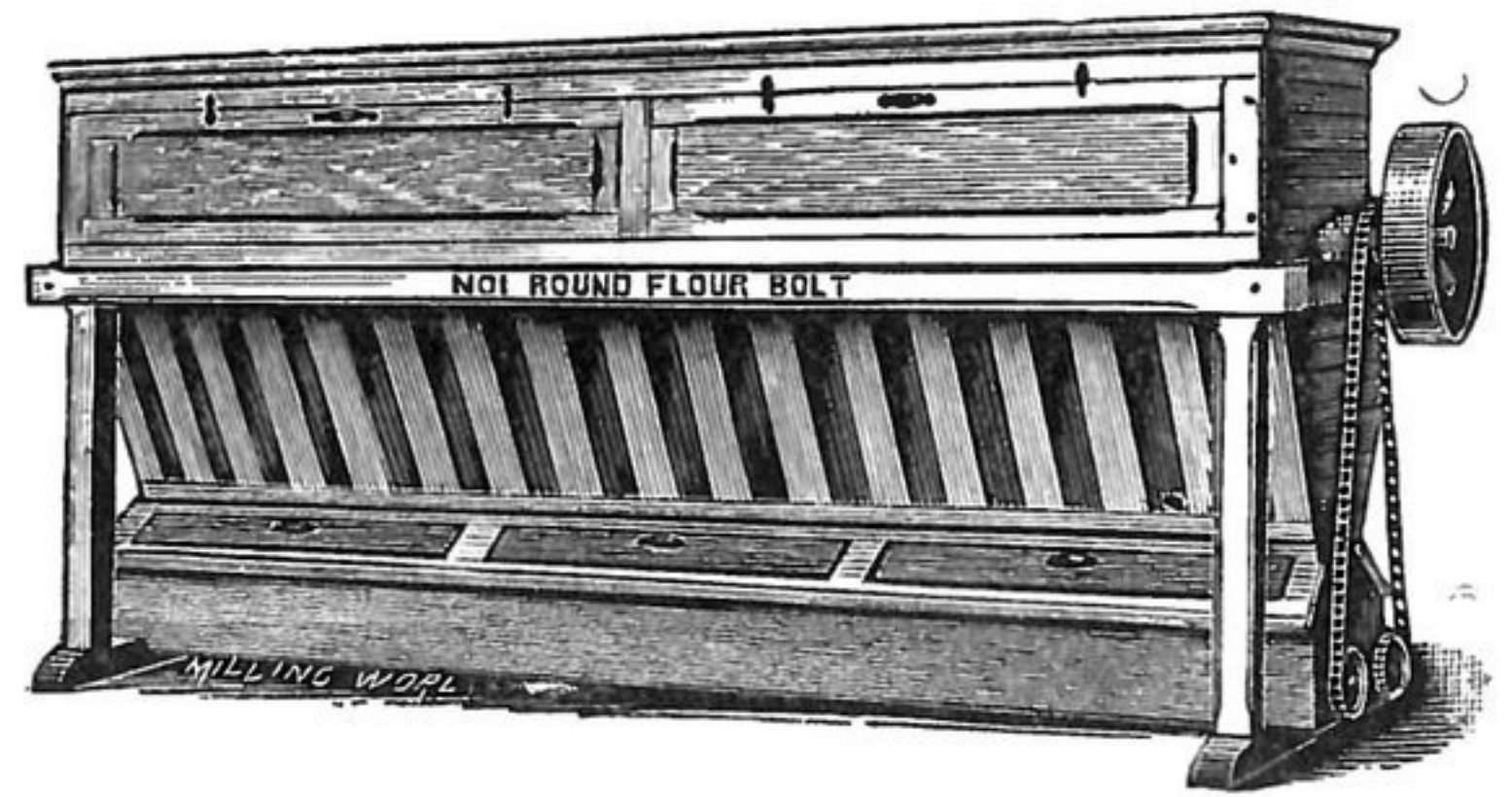
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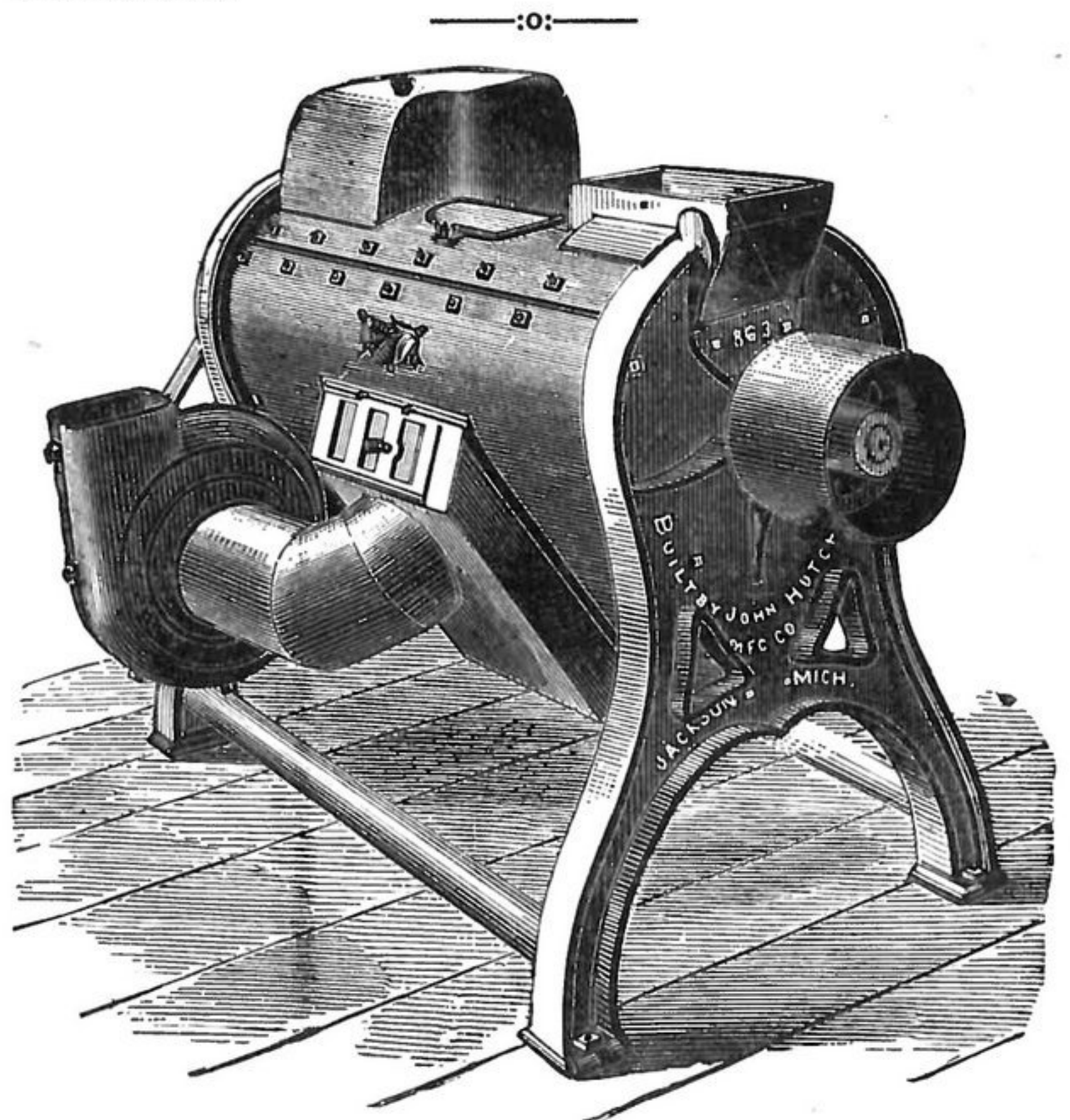


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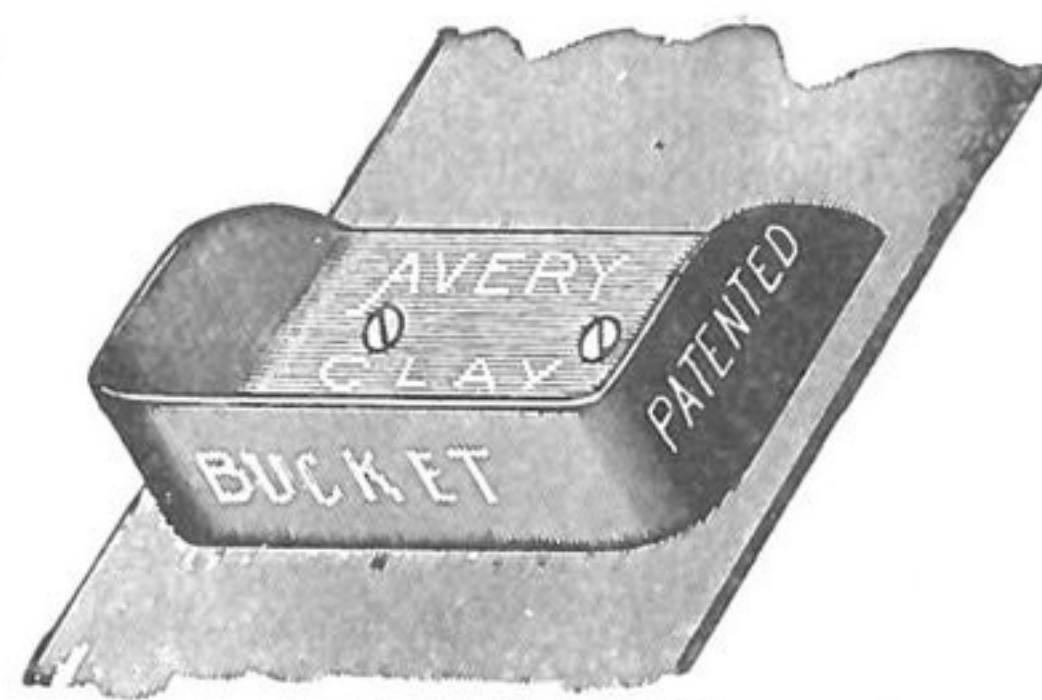


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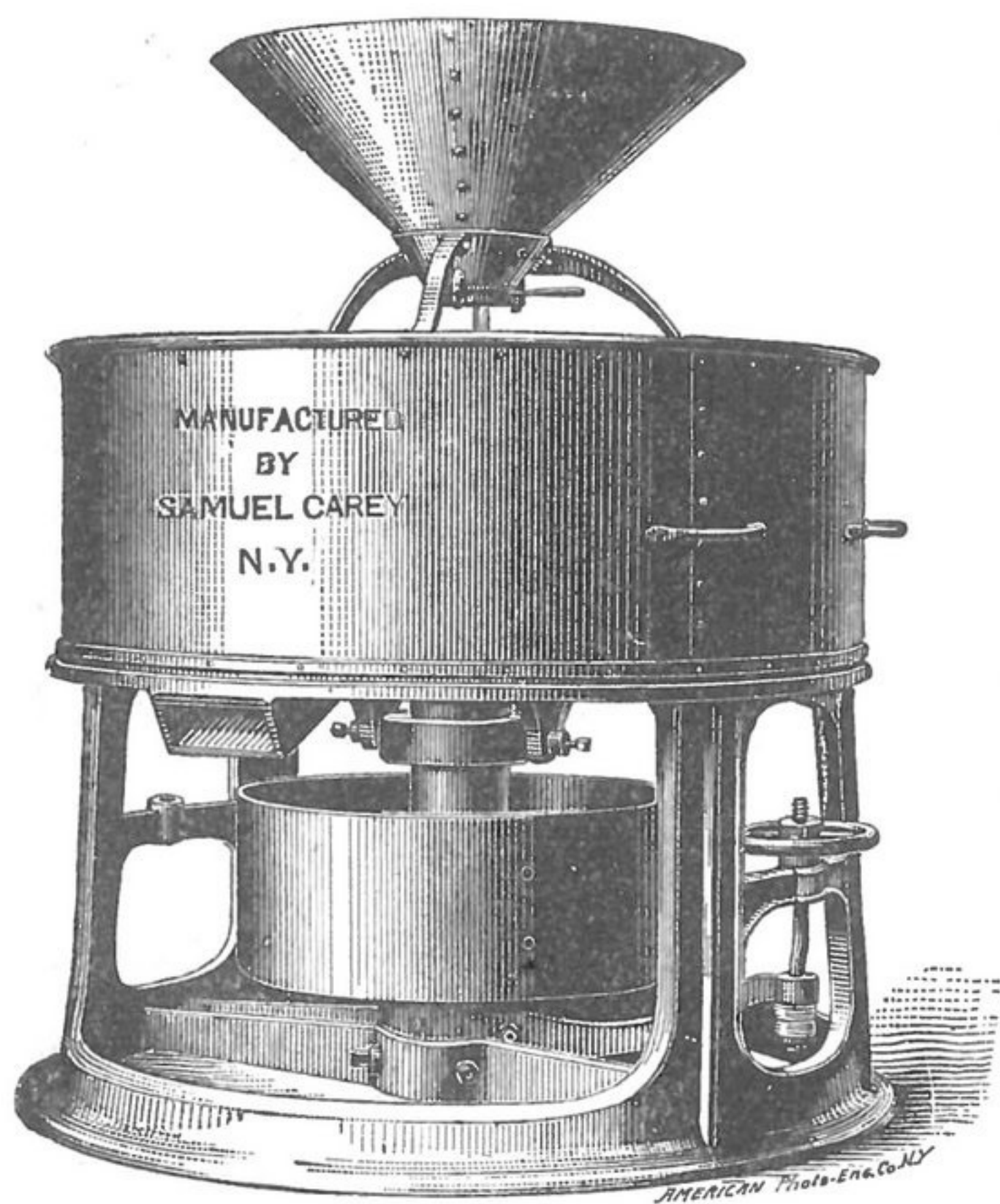
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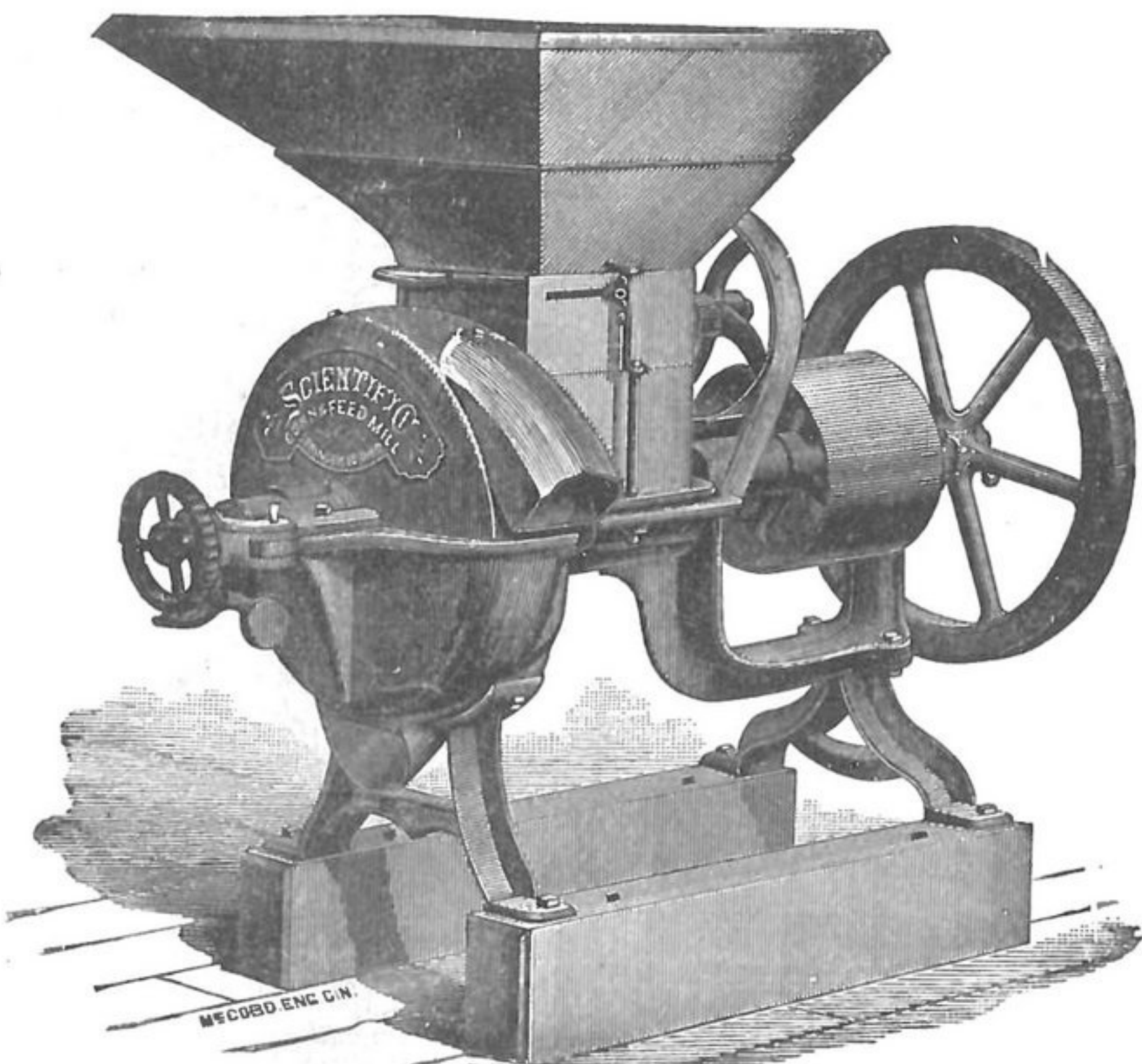
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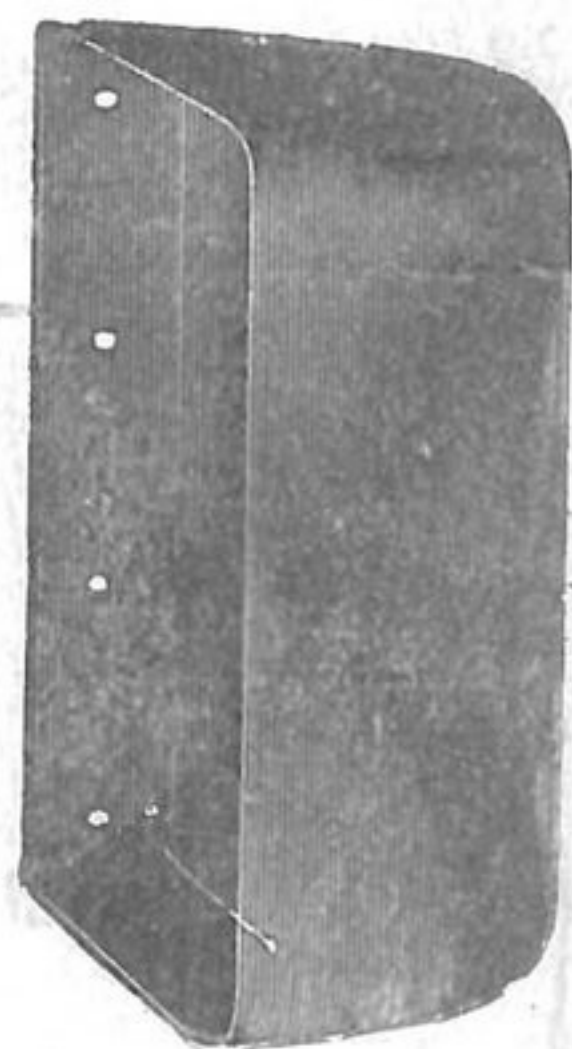
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